11/25/86 B6200-2

World Financial Markets

Morgan Guaranty Trust Company of New York

October/November 1986

The dollar's decline: mission accomplished?, 1

- Dimensions of the trade problem, 3
- Lags, margins, and the internationalization of production, 5
- U.S. growth and trade adjustment, 7
- Peripheral currency issues, 9
- Adjustment in Japan and Europe, 11
- The G-5's unfinished business, 13

Dollar index confusion, 14

Statistical appendix, 19

The dollar's decline: mission accomplished?

Having retraced part of its late-October run-up in the exchange markets, the dollar in mid-November stands 38% lower against the yen and 42% lower against the mark than at its zenith in early 1985 (see Table 1). The scale and speed of this dollar decline is unmatched in major currency experience since World War II. Its effects are slowly beginning to show in Japanese and German trade volumes. In January-October, Japan's export volume slipped marginally below year-earlier levels, but its import volume, excluding gold, rose 6%. In January-September, Germany's exports still were up minimally in volume terms, but its imports increased about 5%, including substantially increased purchases from Japan consistent with the newfound attractions of the German market for Japanese exporters. Even so, both Japan and Germany are seeing their overall trade surpluses continue to widen in dollar terms.

Narrowing of the U.S. trade deficit likewise is both modest and slow, whether judged in relation to the overall figures (see Chart 1) or the key bilateral sensitivities. Although the August and September figures came in well below the exceptionally high figure for July, the cumulative trade deficit for the first nine months of 1986 reached $170 billion at an annual rate on the CIF valuation (as initially reported), substantially exceeding the $140 billion reported at the same point in 1985. Bilateral trade with Japan alone has accounted for about one-third of this year's red ink. Total U.S. exports showed no gain, either in volume or value, during the first nine months of this year over the same months of 1985. But total U.S. import volume surged almost 11% year-on-year and, in value terms, the increase in non-oil imports heavily outweighed the drop in the petroleum import bill. Import volume appears to have run somewhat higher in the third quarter than in the second. Thus there is no definite evidence that the benign phase of the "J-curve" has arrived. Still, experience suggests that it will shortly come into play. For 1987 as a whole, it seems a fair bet that the deficit should narrow modestly to about $140 billion, compared with some $165 billion in 1986 on the "revised statistical month" basis of reporting. The trade adjustment process will remain far from complete, remembering that the surplus on services trade is likely to evaporate. Thus in 1987 the U.S. current account is

Table 1

Dollar exchange rates

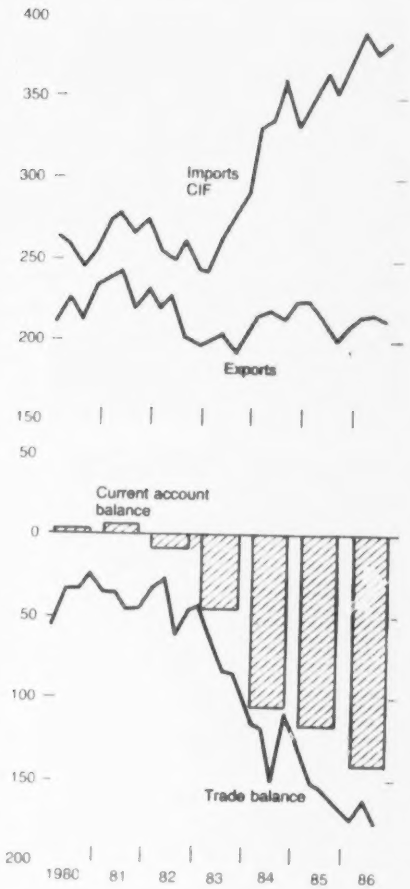
	Nov 17, 1986*	Percent change in dollar from Feb 25, 1985	Percent change in dollar from 1980 average
Japan	163	—38	—28
Canada	1.39	—1	18
Germany	2.01	—42	11
France	6.59	—38	56
United Kingdom	1.43	—26	63
Italy	1393	—35	63
Brazil	14.10	257	26504
Mexico	857	323	3634
Korea	864	2.5	42
Taiwan	36.30	—8	1
Hong Kong	7.80	0	57

*Units per dollar, except dollars per pound for the United Kingdom.

Chart 1

*U.S. trade and current account balances**

billions of dollars



*Trade is FAS CIF basis annual rates
1986 current account is projected

projected to be in deficit by $140 billion — roughly the same as in 1986 — while Japan and Germany may still be in surplus by $63 billion and $24 billion, respectively.

A continuing outsized trade deficit waves a veritable red flag to U.S. protectionists, of both political parties. Most appraisals of recent U.S. economic performance lament the trade deficit's drag on growth, profits, and employment. In the first three quarters of 1986, when U.S. real GNP was up just 2.7% from the like period of 1985, about one-third of the 4.1% rise in domestic demand "leaked" abroad via trade deterioration to the benefit of foreign, rather than U.S., producers. It is widely asserted that, without reversal of this leakage, there can be little hope of stronger GNP growth in 1987.

Disappointment with the limited benefits of dollar depreciation so far has spawned a proliferation of novel exchange rate indices. These purport to show that the weakness of Canadian and developing-country currencies militates against major U.S. trade improvement. Unfortunately, the proliferation of indices has spread more confusion than clarity since, as the second article in this publication points out, the indices discerning minimal depreciation of the dollar are prone to misinterpretation as measures of U.S. competitiveness.

A more constructive debate has been in progress over the past year and a half concerning the global mix of economic policies and burden-sharing most conducive to U.S. trade improvement and the wider health of the world economy. In late September the debate developed into open quarrel among the major industrial countries represented in the Group of Five (G-5), with Germany and Japan resisting both further appreciations of their currencies as a corrective for world trade problems and U.S. pressures for interest rate cuts as a spur to economic growth. German officials took satisfaction in the recent strong growth of their own economy and insisted that the dollar, by then hovering close to the DM2.00 level, had reached an appropriate level against the mark.

Japanese officials held much the same view of the dollar-yen rate, particularly as the yen climbed toward the Y150 level. By the end of October, amid broadening signs of trouble in the domestic economy, the Bank of Japan cut its discount rate by a largely token half-percentage point. A joint U.S.-Japan statement was issued that appeared to imply mutual satisfaction with the prevailing yen rate. But no undertakings were made concerning exchange market intervention and the depth and duration of commitment to yen stabilization remains to be seen.

Trade balance objectives remain in conflict. Officials have offered no convincing evidence that dollar correction has gone far enough against the yen, still less against the mark, to yield adequate U.S. trade improvement. Claims that the dollar is about right at today's levels should find little comfort in the prospective decline in the trade deficit by 1988 to the $100-$125 billion range, CIF valuation. Even with the help of a plausible degree of dollar depreciation against the currencies of the Asian NICs, the trade deficit would remain too high.

The U.S. Administration has not stated its own objectives explicitly, other than for a much reduced U.S. trade deficit — below, say, $100 billion a year — to boost domestic growth and to help defuse protectionist pressures. Holding the view that the United States should eventually resume its former status as a net exporter of capital, some analysts believe that further substantial

Table 2

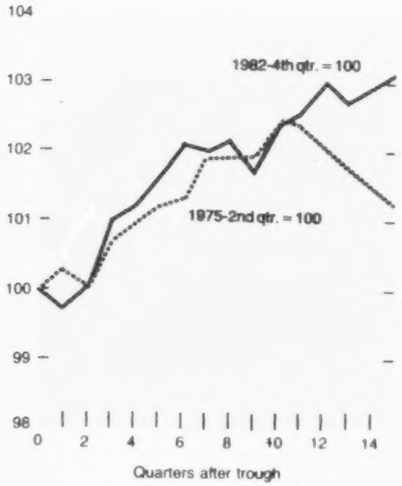
Volume of exports and imports

percent change 1980-1985

	Exports	Imports
United States	—15	45
Japan	42	9
Canada	39	23
Western Europe	22	12
Germany	27	9
France	12	5
United Kingdom	19	26
Italy	27	10
Brazil	59	—40
Mexico	55	—22
Korea	81	55
Taiwan	64	—8
Hong Kong	35	46

Chart 2

U.S. domestic demand ratio to GNP



dollar depreciation — perhaps by as much as 25% — will ultimately be needed against the stronger currencies to return the United States to the preferred status.

Of course, this is neither a practical nor a vital objective for the United States in the immediate future. In most situations of major external imbalance, it is best to press trade adjustment forward with all possible speed. That is the way to minimize the costly legacy of cumulative imbalance. However, in the case of the United States, forcing a return to trade balance within too short a time could throw a wrench into the world economy comparable to the oil shocks of the 1970s. A more reasonable target might be to reduce the U.S. trade deficit to about $50 billion well before the end of the decade.

Meeting this less ambitious, but still challenging, target would reduce risk to the world economy yet greatly curtail the present U.S. call on foreign savings. It also would stabilize quickly the U.S. net foreign debt position, whether gauged in relation to U.S. GNP or exports. Most important, it would lessen the danger to confidence in the U.S. economy posed by rapid buildup of foreign liabilities. However, neither the $50 billion U.S. trade target nor a strong world economy lies within grasp through present exchange rates and government policies. The dollar will have to fall further, the United States attack its budget problems more forcefully, and surplus countries adopt more expansive domestic policies to reach a satisfactory outcome. The coming year should bring a window of opportunity, once next January's elections are over in Germany and before the buildup to the 1988 U.S. elections distracts policymakers' attention.

Dimensions of the trade problem

Whatever the disagreement on the dollar, there is virtual unanimity that the U.S. trade deficit is a drain on the domestic economy and a major challenge for the world at large. The U.S. merchandise deficit of less than $40 billion, or about 1.5% of GNP, in the late 1970s and early 1980s reached $149 billion in 1985 and escalated to an annual rate of $170 billion, or 4% of U.S. GNP, during the first nine months of this year ($162 billion on the basis of eight months' revised data plus the unrevised September figure). The deficit reflects not only stagnation in exports but also huge increases in domestic demand, and therefore in imports, following the late-1982 recovery. The cumulative 45% growth of U.S. import volume from 1980 through 1985 eclipsed the import growth of virtually all other major countries — especially if compared with the single-figure gains of Japan, France, and Germany (see Table 2). U.S. import growth in 1986 has again outpaced that of other industrial countries.

It is not unusual for U.S. domestic demand to grow more rapidly than GNP in the initial stages of an economic recovery. This was true, for example, of the recovery beginning in 1975 (see Chart 2). However, whereas earlier recoveries started from a position of U.S. trade surplus, the current recovery began from one of sizable trade deficit, traceable in part to the appreciation of the dollar in the early 1980s. More important, the trade deficit has continued to grow as the U.S. recovery has matured, instead of shrinking as on previous occasions. U.S. non-oil imports have actually behaved in a more or less normal cyclical fashion (see Chart 3). The big difference lies in U.S. export performance, which has been handicapped by both the protracted strength of

Chart 3

U.S. non-oil imports ratio to GNP

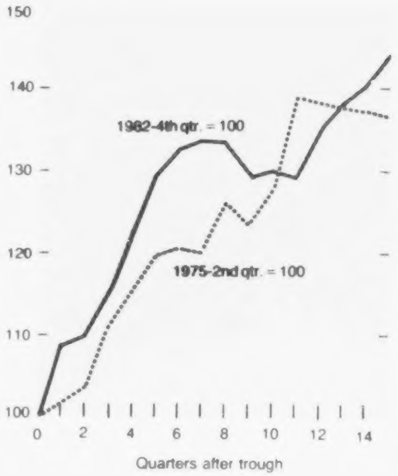


Table 3

U.S. bilateral trade balances

FAS/CIF valuation
billions of dollars

	1980	1983	1986*	Change 1980-1986*
Japan	-12.2	-21.7	-57.4	-45.2
Canada	-6.6	-14.3	-23.7	-17.1
Western Europe	18.6	-0.4	-33.7	-52.3
Germany	-1.3	-4.5	-15.7	-14.4
France	1.9	-0.3	-3.4	-5.3
United Kingdom	2.5	-2.3	-4.6	-7.1
Italy	0.8	-1.9	-6.7	-7.5
Netherlands	6.6	4.6	3.0	-3.6
Spain	2.0	1.2	-0.4	-2.4
Latin America	4.8	-14.7	-14.3	-19.1
Argentina	1.8	0.0	-0.1	-1.9
Brazil	0.3	-2.8	-3.7	-4.1
Mexico	2.3	-7.9	-5.2	-7.5
OPEC**	-31.8	-2.1	-4.7	27.1
Asia excluding Japan	-14.5	-11.5	-37.1	-22.6
Korea	0.3	-1.7	-7.0	-7.3
Taiwan	-3.0	-7.4	-15.6	-12.6
Hong Kong	0.3	-1.7	-7.0	-7.3
Total	-36.4	-69.4	-170.5	-134.1

*January-September at an annual rate, not seasonally adjusted.
**Excluding Ecuador, Indonesia, and Venezuela.

the dollar and the failure of foreign economies to pick up the baton for world growth.

Since the beginning of this decade, U.S. trade balance deterioration has occurred vis-à-vis virtually all the nation's trading partners (see Table 3). Much recent attention has centered on the $17 billion deterioration in the U.S. trade balance with Canada,[*] the $19 billion deterioration vis-à-vis Latin America, and the still greater $27 billion combined deterioration in the U.S. trade position with Hong Kong, Korea, and Taiwan. The attention to Canada, Latin America, and those Asian NICs is understandable, given that they account for 47% of all U.S. trade — a somewhat higher percentage than do Western Europe and Japan. Yet it is with Europe and Japan that the lion's share — some 73% — of the overall U.S. trade deterioration has occurred. Whereas in 1980 the United States recorded a $6 billion surplus with Europe and Japan combined, U.S. trade with those two areas has plunged to an annual-rate deficit of $91 billion so far in 1986.

Most principal U.S. trade sectors display ongoing deterioration in both nominal and volume terms. Since 1980 the *manufactures* trade balance has shifted from a customs-value surplus of $19 billion to an annual-rate deficit of $132 billion so far this year. Manufactures exports have remained unchanged in nominal terms, at roughly $145 billion. Foreign markets stepped up their manufactures imports from all sources by an average of 22% in volume terms, but U.S. exporters' manufactures sales fell 15%, signifying a major loss of global market share. U.S. manufactures imports have more than doubled to $278 billion, with large-scale increases virtually across the board (see Table 4). Even automobile imports, supposedly limited by Japan's voluntary export restraints, have gone up sharply, partly through the workings of the U.S.-Canadian auto arrangement.

U.S. manufacturing has borne the brunt of stepped-up import penetration. Nonpetroleum import volume — mostly manufactured goods — was a full 74% higher by September 1986 than in 1980. Imports of capital goods, excluding automobiles, soared 123% in volume terms. In the initial stages of the recovery, domestic manufacturing output rose strongly despite rapid import growth. During the past two years, the import growth has continued but the domestic sector has managed little further expansion. Its output has risen under 4% since August 1984 and its employment count has fallen some 2%.

The near-vanishing of the U.S. surplus in *agricultural* trade (see Table 5) has occasioned considerable anguish. At the beginning of the decade, agriculture contributed a surplus of $24 billion to the U.S. trade accounts and the sector was cited as a leading exemplar of U.S. comparative and competitive advantage. In fact, farm exports topped out at $44 billion in 1981 and have never accounted for as much as one-fifth of total export earnings. Still, despite the capabilities of efficient third-world rivals, the comparative U.S. advantage remains in many farm products today, if in reduced degree. But the U.S. competitive advantage has been damaged in world markets by the protectionism and subsidy practices of other industrial countries, whose overproduction and price-depressing consequences are only partly offset by U.S. subsidies. U.S. agricultural exports have therefore plum-

---

[*] It may be noted that Canadian trade data, which annual reconciliations usually determine to be more reliable, indicate a bilateral trend substantially less adverse to the United States. Whereas U.S. data show a continuing deterioration this year, the Canadian figures suggest a lessening of the red ink.

Table 4

U.S. manufactures trade

FAS/customs valuation, subcategories are from the end-use classification billions of dollars

	1980	1983	1986*
Balance	19	—31	—132
Exports	144	132	147
Automobiles	16	17	22
Consumer goods	16	13	14
Capital goods	73	67	76
Imports	125	163	278
Automobiles	27	41	77
Consumer goods	34	45	76
Capital goods	30	41	76

*January-September at an annual rate, not seasonally adjusted

Table 5

U.S. agricultural trade

FAS/customs valuation billions of dollars

	1980	1983	1986*
Balance	23.8	19.6	3.2
Exports	41.3	36.1	24.7
Wheat	6.6	6.5	3.4
Corn	8.6	6.5	2.7
Soybeans	5.9	5.9	3.9
Other	20.2	17.2	14.7
Imports	17.4	16.5	21.5
Green coffee, cocoa beans, and sugar	6.3	4.0	5.7
Vegetables and fruit	2.0	2.9	4.4
Fish	2.6	3.6	4.6
Other	6.5	6.0	6.9

*January-September at an annual rate, not seasonally adjusted.

meted 40% in dollar value. Amid the now-chronic worldwide surplus of agricultural commodities, it is difficult to envisage a substantial improvement in U.S. trade performance in this field until major steps are taken to implement structural reform of the farm sectors of industrial countries generally. That will be a long-term process.

Among principal product sectors, only U.S. *petroleum* trade exhibits substantial improvement this year — and, at that, only in current dollar terms now that import volume is swiftly rising: domestic consumption and substitution in favor of oil have turned upward and domestic production is falling away in response to this year's steep drop in oil prices. Further boosted by a sharp turnaround in inventories, U.S. net oil import volume was up by 1.5 million bpd, or 30%, during the first nine months of 1986 over the like period of 1985. If oil prices remain in the $13-$18 per barrel range, U.S. oil usage may well climb 1.5% per annum or more for some years to come and domestic oil production continue to slip steadily. By the end of this decade, net oil imports could once again supply over 40% of domestic use, as they did in the late 1970s. That would call for a 50% jump in the volume of imports over the 1985 level, burdening the U.S. trade deficit with an additional $17 billion reckoned at a price of $18 per barrel.

Lags, margins, and the internationalization of production

It has long been recognized that the U.S. trade deficit will be slow to mend because it stems from a host of causes besides the problems of global agriculture and U.S. oil import dependence. In no particular order, they include the run-up in the dollar through 1985, the J-curve phenomenon, the much larger domestic demand increase since 1980 in the United States than abroad, the low growth of LDCs and their lack of financial resources, the NICs' penetration of the U.S. consumer goods market, and the overwhelmingly domestic sales orientation of U.S. industry coupled with poor productivity performance. Economists may differ on the relative importance of these and other causes but all agree that U.S. trade adjustment will take considerable time. Unfortunately, the economists' lag can easily turn into the politicians' nightmare.

Since its peak in February 1985, the dollar has come down by 25% in *real* effective terms according to Morgan's index of its inflation-adjusted value relative to 15 other industrial-country currencies. As discussed in the next article, Morgan's broad measure of the dollar's real effective rate, vis-à-vis the currencies of 40 U.S. trade partners that include 22 LDCs, estimates an average decline of 20% since the 1985 peak. Both measures of the dollar's real rate now are close to their average level during 1980-82, the base period on which the Morgan indices are reported, but stand 9%-15% higher than in 1980. Even so, on either measure of the effective rate, the dollar's decline has been substantial during the past twenty months and it might have been expected that the benefits for the U.S. trade balance would be plainly visible by now.

One mechanism by which dollar depreciation trims the trade deficit is by raising import prices relative to those of domestically produced goods and exports. To date, the observed increases in the relative price of U.S. imports have not been remotely of the magnitude suggested by the dollar's decline in real effective terms. In part, the disparity can be traced to foreigners' tenacious defense of U.S. market share at the expense of their profit margins. Loosely, it may be said that profit margin decisions so far have subjected U.S. consumers and businesses to price increases averaging no more than about 6% on consumer goods imports, excluding autos, and 7% on nonauto capital goods versus the dollar's 21%-26% real effective exchange rate decline. The modest increase in U.S. import prices in dollar terms since 1985 is consistent with the smaller-than-expected fall in the relative price of imports when the dollar was rising.* Exporters to the United States did not lower their prices as much as the higher dollar would have permitted earlier in the decade, but instead enjoyed ballooning profits even while building rapid gains in market share. For that very reason, had the dollar held its peak levels of early 1985, it must be presumed that the U.S. trade deficit would have widened much more than it has in 1986.

With the dollar now more realistically valued, foreign exporters' profit margins are reverting to more normal levels. Indeed, it is unlikely that any great proportion of further declines in the dollar could be absorbed by either the supplier firms or their U.S. distributors, implying more complete pass-through of dollar weakness into final selling prices on the U.S. market from now on. Once again, however, lags are of the essence. At least for a time during a period of pervasive excess capacity worldwide and an uncertain economic outlook, it may be quite rational for foreign exporters to maintain or boost their U.S. sales at little or no profit.

Several adjustment strategies may be available to exporters from a country, such as Japan, whose real exchange rate rises. First, they may make rigorous efforts to boost home-base productivity and cut costs generally in order to restore margins on U.S. sales without raising dollar selling prices. Sometimes the cost cuts may even extend to nominal wages. Second, they may switch production to lower-cost locations, such as Taiwan, that they judge less affected by upward currency pressure yet able to produce goods of a quality salable in the United States. Third, they may invest in U.S. production facilities, expecting either to achieve competitive cost levels in due course or to insulate their U.S. sales from protectionist interference. Fourth, they may choose eventually to raise their U.S. selling prices to restore profit margins to acceptable levels, taking whatever loss of market share this may ultimately entail and hoping to make it up in their home market or elsewhere in the world.

Such strategies were pursued by U.S. firms while the dollar was on its uptrend, contributing to the much-remarked phenomena of foreign "outsourcing" and production internationalization. Now that the dollar has come down, many Japanese firms, and some in Europe too, are having to follow along somewhat similar lines for profitable survival. For their part, having discovered the advantages, U.S. producers and purchasing agents are unlikely to abandon these strategies, although U.S. locations should appear more attractive than before. In all, the instability of exchange rates during the past fifteen years is intensifying the internationalization of production. Currency instability renders uncertain the profitability of any single production base.

The upshot for the U.S. trade balance should be that the dollar's depreciation against the yen and European currencies will spur switching of product sourcing away from Japan and Europe toward facilities in the NICs and others in the United States, some of which will surely be developed under foreign ownership or joint ventures with U.S. firms. Similarly, the profitability of U.S. exporters from U.S. facilities now is on the mend. But it remains to be seen how actively or successfully U.S. firms will exploit the new opportunities to build back domestic market share and develop sales abroad.

---

*This phenomenon is not new. Divergence between trends in the dollar and relative import-export prices occurred in the 1970s as well, but the differences were much smaller during that period, as also were the changes in the real value of the dollar.

Most likely, the U.S. trade deficit will be slow to heal, absent a surprisingly favorable turn in world developments or a further fall in the dollar of significant magnitude. Many U.S. firms are wrestling with quality problems, sluggish labor productivity, inadequate profitability in relation to capital costs, and an eroding technological lead — where this has not vanished already. These shortcomings cannot be quickly redressed. Moreover, beyond the level of the firm, there are basic deficiencies in existing U.S. approaches to the broad structural aspects of competitiveness, such as research and development, education, human resource management, and the promotion of world market orientation. Extensive recommendations on these matters, recognizing their inevitable complexity, were put forward in the 1985 report* of the President's Commission on Industrial Competitiveness. Until recently the Reagan Administration has been slow to pursue many of the commission's key recommendations, despite their long-term relevance to the strengthening of U.S. competitiveness. Those recommendations may be difficult to implement and slow to bear fruit, but their eventual payoff should be more rewarding than reliance on laissez-faire and dollar depreciation.

U.S. growth and trade adjustment

When unsustainable external payments imbalances call for correction, deficit countries customarily take on the primary burden of adjustment. The United States can be no exception, even though major adjustment on the part of the world's largest economy must inevitably have major consequences for economic policies and performance worldwide.

The U.S. current account deficit now is running on the order of 3½% of GNP and the implications of chronic U.S. dependence on capital imports cannot be ignored indefinitely. At current exchange rates and on present readings of the world economic outlook, the U.S. net foreign debt could exceed $800 billion — double the current level of annual U.S. goods and services exports — within just four years. To pay, rather than borrow, the interest on this foreign debt, the United States one day will have to earn surpluses on its trade in goods and noninterest services — just as Latin America is doing right now.

Other countries facing a comparable adjustment challenge have often found the process severely disruptive of domestic growth and price stability. U.S. adjustment likewise poses significant risks. These can be mitigated, but only in the longer term, through structural efforts to raise U.S. competitiveness. More immediately, the pressing issues primarily concern macroeconomic demand management, where the policy options are fraught with uncertainty in their practical effects.

Most U.S. analysts believe that

**Global Competition — The New Reality*, U.S. Government Printing Office, Washington, D.C., 1985. Senior officers of leading U.S. industrial corporations, many active in high technology, formed the majority of the thirty-member commission, which was chaired by John A. Young, President and CEO of Hewlett-Packard Company.

reduction of the U.S. trade deficit will boost U.S. economic growth. Were it not for the leakage of domestic demand through the trade deficit over the past three years, it is said, GNP growth would have been stronger than has actually resulted. This claim, "obvious" though it may appear, is open to question.

First, its converse — that countries with rising trade surpluses should experience increased overall growth — is belied by the substandard performances of Japan and Germany during the cyclical upturn since 1982, not least by reason of their restrictive macroeconomic policies. Second, when Britain and Italy moved to correct trade deficits in the 1970s, or Latin America moved likewise in the present decade, adjustment typically triggered recession, not enhanced growth. Third, in the U.S. case, the rise in the trade deficit since the 1981-82 recession has permitted a more rapid increase in domestic demand than otherwise could have occurred without driving up interest rates and inflation. Both domestic investment and consumption were able to grow without the one "crowding out" the other. Besides, had the United States not absorbed imports from the rest of the world, its trade partners' economic recovery would have been even more in doubt and their demand for U.S. exports would have fallen away more sharply than in the actual event.

Accordingly, it is far from clear that undoing of the leakage of U.S. domestic demand through the trade deficit will boost overall U.S. growth in a major way. About the best that can be realistically expected is that reduction of the trade deficit will boost the fortunes of U.S. manufacturing and agriculture without disproportionate cost to the vastly larger services sector of the economy.

Another linkage of dubious validity is the one drawn between the U.S. trade deficit and the U.S. federal budget deficit. The linkage rests on the accounting truism that the current account deficit is the external manifestation of a shortfall in U.S. domestic savings below domestic investment, together with the observation that the budget deficit constitutes domestic dissaving. Reduction of the budget deficit — not further depreciation of the dollar — is therefore seen as the fundamental remedy for the U.S. trade imbalance.

Despite the record $221 billion federal deficit in the fiscal year ended this past September, U.S. budget analysts believe that the Congress has taken enough steps to place the deficit on a firmly declining path relative to GNP, even without literal adherence to the Gramm-Rudman prescription in the years ahead. The results are now awaited. Conceivably, as optimists sometimes suppose, fiscal stringency may inspire an upsurge of private confidence, consumption, and investment sufficient to outweigh the direct contractionary impact on aggregate demand and boost GNP growth. This has been the case in Denmark, which has now erased a general-government deficit that ran as much as 9% of GNP just four years ago and which has seen its economic growth rise well above its European neighbors'. But, at the same time, Denmark has experienced a sharp widening of its external trade and current account deficits. Thus, if U.S. fiscal contraction somehow provides a lift to U.S. growth, it is unlikely simultaneously to contribute to U.S. external adjustment. Of course, Denmark's achievement of higher growth amid fiscal tightening is practically unique among recent exercises in government austerity in Europe and Japan. Certainly, it flies in the face of the predominant wisdom that austerity curbs both economic growth and an

Table 6

Real exchange rate changes, October 1986 from 1980 average

percent

	*Overall effective**	*Bilateral, vis-à-vis dollar*
United States	15	—
Japan	27	12
Canada	—5	—8
Germany	3	—10
France	0	—12
United Kingdom	—17	—27
Italy	4	—10
Brazil	—14	—25
Mexico	—45	—44
Korea	—28	—33
Taiwan	—11	—14
Hong Kong	—6	—12

*Using Morgan's "broad" indices, described in the next article and measuring the inflation-adjusted values of the currencies against those of 18 industrial countries and 22 developing countries.

external deficit, and can be relied on to do so in the case of the United States.

Embedded in the predominant wisdom is the conviction that the dollar will weaken as a lower U.S. budget deficit curbs the domestic savings-investment imbalance and thereby cuts reliance on foreign capital inflows. There is, however, the awkward possibility — which cannot be lightly dismissed — that the dollar will instead be driven higher. Foreigners and U.S. residents alike may perceive deficit-cutting as removing a major blemish on the U.S. economy. But a higher dollar would hardly be helpful to the narrowing of the U.S. external deficit.

Given all these uncertainties about the contribution of U.S. budget deficit reduction to U.S. growth and trade adjustment, there can be but one bottom line. If the fiscal contraction on which the United States has now embarked is to lead to better performance for the U.S. economy and the world at large, it will have to be accompanied by a genuinely flexible monetary policy. Such a policy should not be beholden to wayward monetary aggregates or goals for domestic growth too high for external adjustment but, instead, will have to be geared to domestic growth more moderate than politicians might wish yet consistent with progress in narrowing the nation's trade and current account deficits. And for this latter purpose, additional dollar depreciation — assisted as necessary by monetary policy — seems likely to be a vital ingredient, whether or not induced automatically by a shrinking federal budget deficit.

Peripheral currency issues

The lack of major improvement in the U.S. trade deficit to date has inspired a number of proposals that would tinker at the edges of the problem. For example, much play has been given to the view that Latin America's debt problems are a principal source of U.S. trade distress. This is factually incorrect. The deficit with Latin America, which was $14.3 billion at an annual rate during the first nine months of this year, has narrowed from its 1984 peak of $18 billion. It now represents only 8% of the overall U.S. trade deficit. Moreover, U.S. imports from the region have fallen $3.4 billion so far this year because of lower oil purchases from Ecuador, Mexico, and Venezuela.

U.S. exports to Latin America of $27.8 billion have partly recuperated from their 1983 low of $22.6 billion, in line with the modest recovery of economic growth in the region and marking a better performance for U.S. exporters than they have achieved in other foreign markets. Granted, their sales remain far below the peak of $39 billion in 1981, which allowed the United States a bilateral surplus of over $5 billion. However, that favorable U.S. position was the counterpart of unusually high Latin American imports and was financed by unsustainably rapid debt accumulation, given that the region's export earnings were actually falling.

Adoption of more realistic exchange rate policies was a necessary ingredient in the inevitable correction (see Table 6). Maintenance of competitive exchange rates in the region remains vital today as it seeks fuller realization of its export potential through more effective product diversification and penetration of markets in Europe and Asia. In the meantime, growth of Latin America's imports from the United States will remain limited. So too will be the feasible improvement in the U.S. bilateral deficit with the

Table 7

Trade and current account balances

billions of dollars

	Bilateral trade balance with the United States Jan-Sep 1986*	1986 projected	
		Overall trade balance**	Current account balance
United States	—	—145	—140
Japan	57	87	82
Canada	24	8	—8
Western Europe	34	42	49
Germany	16	58	34
France	3	—3	2
United Kingdom	5	—12	—1
Italy	7	1	4
Brazil	4	12	0
Mexico	5	4	—3
Korea	7	3.5	4
Taiwan	16	14	12
Hong Kong	6	3	2

*Annual rate, as shown in U.S. FAS/CIF data, not seasonally adjusted.

**Balance of payments basis. The U.S. trade deficit of $145 billion corresponds to a deficit of $165 billion FAS/CIF.

area. However, this imbalance does not loom especially large in the panoply of U.S. trade problems.

Other proposals to tackle U.S. trade woes address the unbalanced character of the dollar's depreciation. Thus, Canada and many of the Asian NICs have seen no significant strengthening of their currencies against the dollar during the past twenty months, yet collectively they run sizable surpluses in their bilateral trade with the United States.

However, substantial Canadian dollar appreciation is not presently warranted in the perspective of that nation's overall economic and trade positions. Despite its large bilateral trade surplus with the United States, Canada cannot afford appreciation of its currency in effective terms — and therefore not by much against the dollar. First, Canada is on its way to a current account deficit of $8 billion or more this year (see Table 7), partly reflecting the collapse of oil prices. Second, because Canada is a net debtor, it has to run a sizable trade surplus merely to contain the current account deficit. Third, because Canada remits substantial dividends and interest payments, its current account surplus with the United States — reported by Canada at an annualized $1.2 billion for the first half of 1986 — is minuscule beside its bilateral trade surplus of $11.4 billion. Canada needs to cut its deficits with Japan and Europe if it is to reduce its bilateral surplus with the United States without running into an overall balance of payments constraint. In this light, any major strengthening of the currency would force Canada to take the counterproductive course of slowing its economic growth and accepting a rise in its already high unemployment rate of 9.4%.

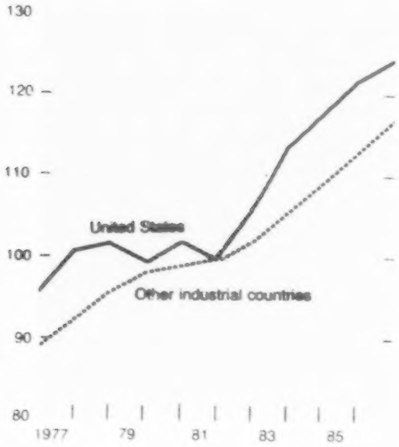
A few of the Asian NICs have greater leeway for currency appreciation against the dollar, especially in the context of a strong yen. Hong Kong is one example. Its currency has been tied to the dollar since 1983 and, in inflation-adjusted terms, stands 12% lower than on average during 1980 relative to the dollar. Hong Kong's bilateral trade with the United States is headed for a $7 billion surplus this year, of which a minor portion represents goods reexported through the Colony from China and elsewhere. This surplus has grown substantially in recent years. Moreover, Hong Kong has been running sizable current account surpluses, which may reach $2 billion this year and which provide a prima facie case for appreciation of its currency.

Korea offers a second example of apparent currency undervaluation. From 1980 through this October, the won depreciated 42% in nominal terms against the dollar and an estimated 33% in real bilateral terms. This helped transform the Korean trade balance with the United States from a small deficit in 1980 to a surplus that could reach $7 billion this year. Because Korea runs deficits with Japan and the oil exporters, its overall trade surplus will likely be around $3.5 billion, with a fractionally higher surplus on current account. Not since 1977 has Korea been in current account surplus. The longevity of the surplus may be questioned on this occasion too, since Korea has kept a tight rein on domestic investment in recent years and major projects are in the works. However, Korean exporters are deriving major and growing competitive advantage from the yen's appreciation. This should permit not only much-needed import liberalization and stepped-up imports for domestic investment but also a boost for Korean living standards through a higher real exchange rate.

Taiwan's currency offers the truly egregious example of undervaluation. Although the new Taiwan dol-

Chart 4

Real domestic demand
1982 = 100



lar has appreciated 8% against the dollar since early 1985, it remains fractionally below its 1980 level in nominal terms and is fully 14% lower in real terms. Taiwan is likely to run a $16 billion trade surplus with the United States this year. Taiwan's overall trade surplus, estimated to exceed $14 billion, or 21% of GNP, is vastly greater than those of Japan and Germany in GNP terms. Moreover, Taiwan has been running large surpluses on current account as well. By the end of this year its foreign exchange reserves could reach $44 billion — over 60% of GNP. In absolute dollar magnitude, they are not much less than those reported by Japan and Germany, whose economies are many times the size of Taiwan's. Finally, Taiwan's fast real GNP growth — at an annual average of 6.5% since 1980 — has been largely based on the expanding external surplus. Already by 1985, that surplus had mushroomed above 11% of GNP in real terms and it continues to climb. By contrast, Taiwan's domestic consumption and real wages have grown much less than GNP, and investment has been chronically depressed. Altogether, there can be little doubt that Taiwan handily meets the most conservative criteria for fundamental disequilibrium. The facts warrant a very substantial appreciation of its currency, in conjunction with liberalization of imports and other economic controls. These steps would help nudge the economy up the technological ladder and away from its predominantly labor-intensive industrial structure. More important, from a global perspective, they are essential to correction of Taiwan's massive external imbalance.

Even so, it would be foolish to suppose that Asian NIC adjustment could contribute more than $10-$15 billion toward solution of the wider U.S. trade problem, just as it would be wrong to undermine Canada's balance of payments or the financial rehabilitation of Latin America for the sake of short-term bilateral trade gains for the United States.

Adjustment in Japan and Europe

Besides the Asian NICs, Japan and Germany will have to come to terms with their adjustment needs, both to curb excessive trade surpluses that are the counterpart of the U.S. deficit and to bolster world economic growth.

One of the main causes of the U.S. trade deficit remains the domestic demand gap that opened up in 1983 and 1984 between the United States and other industrial countries (see Chart 4). The United States relied on domestic demand to spur its economic recovery. By contrast, its trade partners relied mostly on export-led growth in the first phase of their recoveries, permitting only slow growth in domestic demand. Even though foreign domestic demand has accelerated during the past year and a half, the *cumulative* gap vis-à-vis U.S. domestic demand is narrowing only slightly and is far from being undone. Unless that occurs, the U.S. trade deficit is unlikely to be eliminated — as was clearly demonstrated in the late 1970s when success in reducing the trade deficit required a shortfall in U.S. domestic demand growth below that abroad, in addition to dollar depreciation.

U.S. officials stress the potential of stepped-up economic growth in Japan and Europe as a means to boost demand for U.S. exports without the inflationary risks of further large-scale dollar depreciation. If foreign growth could be stepped up by 1%, even conservative estimates suggest that the U.S. trade balance would gain by some $10 billion per

Table 8

Real GNP growth

annual average
percent

	1985	*1986*	*1987*
United States	2.7	2.5	2.5
Japan	4.5	2.2	2.4
Canada	4.0	3.0	2.5
Germany	2.4	3.0	3.5
France	1.4	2.5	2.8
United Kingdom	3.4	2.2	2.8
Italy	2.3	3.3	3.2
Brazil	8.3	7.0	3.0
Mexico	2.7	—3.0	2.0
Korea	5.1	[illegible]	7.5
Taiwan	4.7	8.5	7.0
Hong Kong	0.8	4.5	4.5

annum. While welcome, that would not be much in the context of the $165 billion deficit expected this year. But growth acceleration would undoubtedly accomplish much for global objectives generally, notably the resumption of rising living standards and investment in developing countries.

Unfortunately, on the basis of present policies there is little reason to project any significant pickup in Japan's real GNP growth in the year ahead (see Table 8). The recent U.S.-Japan accord took note of Japan's plans for revenue-neutral tax reform. These, if and when enacted, would not constitute a fiscal boost in the conventional sense. Their payoff in faster economic growth would be realized only some years hence and on the assumption that reformed incentives succeed in boosting private-sector confidence, domestic investment, and consumption. Japan remains committed to zero long-term growth in government expenditure. The proposed supplementary budget for the current fiscal year is designed less to boost central government spending than to soften near-term cuts. And the planned increases in local spending remain hostage to fortune and bureaucracy.

As for Japan's monetary policy, the end-October cut in the discount rate manifests concern over the faltering domestic economy but is unlikely to have any major stimulative effect. For one thing, the discount rate is not a reliable guide to borrowing costs. Although the yields on benchmark bonds have come down in recent weeks, they are no lower than eight months ago and certainly represent no reduction in the very high level of real interest rates in Japan. Moreover, Japan's industrial sector is struggling to cope with a much stronger yen than most firms had envisaged a year or so ago, mandating new stringency in cost control, including labor compensation. Real income growth therefore seems unlikely to support any material further acceleration in Japan's real domestic consumption above the pace of recent quarters, nor is there much hope of a sizable increase in business investment. Finally, whatever growth comes through in Japan's domestic demand will be blunted by the slippage of net external demand that now is clearly in progress.

Germany's real GNP growth is projected to slow sharply during 1987, to about 2% fourth-quarter to fourth-quarter, notwithstanding an apparent acceleration from 3% in 1986 to 3.5% in 1987 on an annual-average reckoning. Preliminary figures for industrial production and factory orders in September, which were down from August levels, point to some weakening of economic growth during the past summer months. However, employment gains in both September and October are among the indications that both the production and orders figures for September will be revised upward, suggesting that, from the fourth quarter of 1985 through the end of this year, Germany's real GNP may yet expand roughly 4.5%.

Next year is another story. Following its acceleration in 1986, Germany's domestic demand is unlikely to speed up further in the year ahead. In real GNP, there will be a growing offset through still-surging imports and weak exports, thanks to the strength of the mark and sluggish activity in Germany's export markets. If the mark strengthens significantly further, the currently strong intentions for German business investment next year could be revised sharply downward, further paring the modest growth anticipated for the German economy as a whole.

Any significant slowing of German growth below present expectations would darken the already somber prospects facing other European countries. Britain and France have been experiencing slower-than-expected export growth this year, raising balance of payments concerns anew. Even if their exports grow more strongly in 1987, neither is likely to achieve better than 2.8% real GNP growth on an annual-average reckoning, still less any significant reduction in unemployment.

The G-5's unfinished business

Despite the dollar's 20%-25% real effective depreciation to date since its 1985 peak, standard projections do not support the notion that the U.S. trade deficit will shrink below $100 billion a year, let alone to the recommended goal of $50 billion a year this side of 1990. As noted earlier, the dollar still stands substantially higher in real terms than in 1980, on the order of 9%-15%. A pessimistic deficit prognosis is fortified by recognition of the cumulative growth gap that has opened up between the United States and other major industrial countries during the present decade, plus the litany of structural woes afflicting U.S. trade performance.

Although the November U.S. Congressional elections now are history, it remains vital for the world at large that the U.S. trade deficit recede as a domestic political issue. Many Democrats, with the sympathy of many Republicans, have long judged the Administration's record more vulnerable on the trade issue than the somewhat intangible and seemingly intractable budget issue. The House passed a trade bill embodying stiff import surcharges during the session just ended. The Administration was strongly opposed and the Senate took no action.

But the trade deficit may not play out as a partisan issue. Since the election the Administration has begun to display fresh interest in dusting off earlier recommendations for strengthening U.S. structural competitiveness, an interest shared in some particulars by many Democrats. However, there can be little doubt that the new Congress will quickly take up a variety of proposals for restriction of U.S. imports plus, quite possibly, more aggressive U.S. export policies wherever foreign practices are deemed unfair. Particularly in the event that the U.S. economy remains sluggish and intensifies the protectionist sentiment of the U.S. electorate, the possibility should not be underrated that an avowedly free-trade Administration will come to espouse punitive import legislation. It may be recalled, in this connection, that it was a Republican president who ordered the 1971 import surcharge.

The work of the G-5 to correct global imbalances through international policy coordination, whether in matters of economic growth or exchange rate relationships, therefore is far from finished. Although adjustment would be ideally pursued on all fronts at once, political realities caution that progress may be achieved more effectively one step at a time. Just now, the first U.S. priority should be to nudge Japan into further actions to deliver on the Mayekawa report's recommendation to rebase the nation's economic growth on domestic demand. Japan's adjustment will not be easy. However, once a breathing space has passed providing Japan the opportunity to buttress its domestic growth, it will be appropriate to reconsider the current official view that the yen has reached a level consistent with fundamentals. Secondarily, it can be expected that the United States will continue to press Korea, and particularly Taiwan, to let their currencies rise against the dollar.

In 1987, after the German elections, the spotlight should shift to Europe, where Germany is the key player. If its economic growth begins to slow, as most projections envisage, Germany should gradually become more open to positive steps to boost its economy. Such a boost would lessen the constraints on growth in Britain, France, and other countries in Europe burdened by heavy unemployment. Further, if Germany is to do its part in helping correct both the U.S. trade deficit and its own outsize trade surplus without provoking destructive protectionism, a significant rise in the mark-dollar rate will be required.

Bilateral inflation differentials shed instructive light on the appropriateness of the mark's present level. To restore the real bilateral price relationship for manufactured goods that existed between Germany and the United States at the time of the mark's monthly average high of the 1970s would call for the mark to rise from its actual present level to about DM1.67 to the dollar. Similar considerations for the yen point to a rate of Y139. These figures lend support to the view that the yen has moved substantially closer than the mark to a reasonable notion of "purchasing power parity" with the dollar. The mark, indeed, would seem to have a long way further to go, even before allowing for the sizable present and future inflation differential between the United States and Germany. Once the European and Japanese currencies move higher against the dollar, some moderate appreciation of the Canadian dollar also should be possible against the U.S. unit.

In sum, it is possible to discern the outlines of a G-5 understanding that would simultaneously carry the dollar lower in due course — but not precipitously nor necessarily within the next several months — boost economic growth in Japan and Europe, alleviate the trade frictions engendered by extreme U.S. bilateral imbalances, and assist correction of the overall U.S. trade and current account deficits. Achievement of these objectives will demand real commitment on the part of at least the three principal members of the G-5.

Dollar index confusion

Some assessments of the actual and prospective consequences of a lower dollar betray confusion over the extent and interpretation of the dollar's decline from its high point of February 1985. Clearly, the dollar has come down substantially — by as much as 42% — against most European currencies and the Japanese yen. But it has risen against the Canadian and Australian currencies. Striking a balance, Morgan's long-published index of the dollar's nominal trade-weighted average, or "effective," exchange rate against 15 other industrial-country currencies shows a decline of 25% through this October (see Table 9). However, the currencies of developing countries now have come under the spotlight. Hardly any of these currencies have appreciated against the dollar. Several have fallen, in some cases steeply. If the dollar effective rate calculation is broadened to include LDC currencies, the dollar's overall decline at first sight appears minimal.

Table 9

Dollar effective exchange rate indices

	Federal Reserve Board	*Morgan*		*Federal Reserve Bank of Dallas*
		Traditional	*Broad*	
Nominal, October 1986 percent changes since				
*February 1985**	—33	—25	—12	—3
1980 average	22	11	68	82
Real, October 1986 percent changes since				
*February 1985**	—	—25	—20	—
1980 average	—	9	15	—
Weights by region, in percent				
Europe	77.3	44.1	38.0	25.2
Canada	9.1	30.3	20.7	20.7
Japan	13.6	23.2	18.5	16.8
*Latin America***	—	—	10.5	14.0
*Asian NICs****	—	—	8.9	13.7
Other	—	2.4	3.4	9.6
	100.0	100.0	100.0	100.0

*On a monthly average basis the Morgan indices peaked in March 1985 in nominal terms, but in February 1985 in real terms.

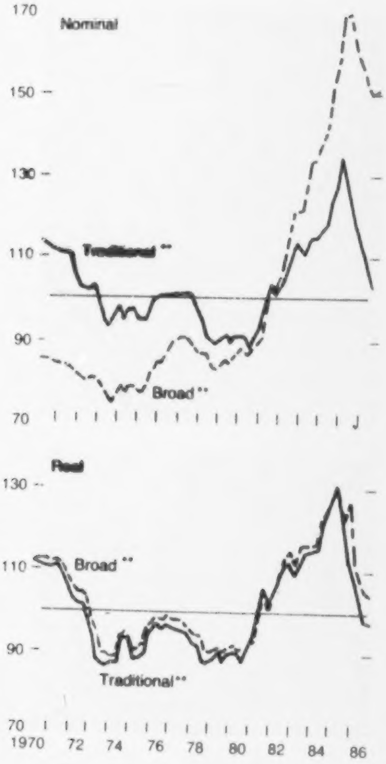
**Includes other Western Hemisphere.

***Taiwan, Korea, Hong Kong, China, Singapore, Indonesia, Malaysia, and Thailand.

Chart 5

*Dollar effective exchange rates**

1980 = 100



*Traditional: dollar against currencies of 15 other industrial countries. Broad: dollar against currencies of 18 other industrial countries and 22 developing countries listed in Table 10

**Latest plotting October

That is the appearance conveyed by certain dollar indices that have been newly published during the last several months. Confused by the lack of agreement among the many indices now in circulation, some observers have concluded that the dollar's depreciation during the past twenty months has been token at best as a solution to U.S. trade problems. Such conclusions are unwarranted, given the findings of a broad, inflation-adjusted Morgan index for the dollar, which places its depreciation since early 1985 at a full 20%. A precursor of this index was presented in the July 1983 issue of this publication. The present article summarizes the key issues to be faced in the design of a reliable index of competitiveness. The article further re-introduces that broad index, which covers the currencies of 40 principal U.S. trade partners including 22 LDCs (see Chart 5).

Most effective rate indices for the dollar endeavor to measure the weighted-average change in U.S. competitiveness brought about by movements in exchange rates. Indices differ in their choice of currencies included in the averaging, their assignment of weights to represent the relative importance of the included currencies, and how, if at all, measures of differential inflation performance are applied to restate the nominal exchange rate indices in "real," inflation-adjusted terms.

Hitherto, the dollar exchange rate indices best known in the United States have been those published by Morgan and the Federal Reserve Board. Both have concentrated on appraising the dollar's value in terms of the currencies of other *industrial* countries, the currencies traditionally traded most actively in international markets. This bank's familiar dollar index weighs each included currency in accordance with the importance of the corresponding country in the 1980 *bilateral* pattern of U.S. trade in *manufactured goods*. The dollar's decline is substantially greater on the Federal Reserve Board index because its weights reflect *shares* in *world* trade in *all goods* rather than U.S. trade in manufactures; it therefore downplays the U.S.-Canadian relationship in favor of the yen and a subset of European currencies.

It is fair to question whether exchange rate indices limited to industrial-country currencies adequately reflect today's global trade realities. After all, whereas in 1970 U.S. trade with LDCs formed only 28% of all U.S. trade – and, on the U.S. import side, was concentrated in noncompeting primary products – the LDC share had risen to 34% by 1985 and also had come to supply 26% of all U.S. manufactures imports. Heightened awareness of these trends has inspired a number of efforts to incorporate LDC currency movements into effective rate calculations.*

Recently, but in nominal terms only, the Dallas Federal Reserve has published an exhaustive index, embracing no less than 131 currencies of countries accounting for virtually all U.S. foreign trade save that with the Soviet Union. This index finds a decline of just 3% in the dollar from its 1985 peak. In fact, a less comprehensive currency list yields much the same result. Shortening of the list to, say, the currencies of the 40 countries listed in Table 10, which collectively accounted for nearly 90% of total U.S. trade in 1985, leads to a dollar exchange rate index that has declined a not dissimilar 6% from the 1985 peak. For that matter, the currency list could be slashed to the top 20 U.S. trade partners, including LDCs, and still provide much the same reading on the dollar.

---

*Inclusion of LDC currencies is a feature of a U.S. Treasury index published in its quarterly bulletin. Unfortunately, the Treasury's technical construction imparts a persistent and strong upward bias to its calculated measure of the dollar's exchange value. This Treasury index, which encompasses 46 currencies including those of major LDCs, is computed as an arithmetic weighted average relative to a base period of 1970. The Morgan indices utilize geometric weighting that has the mathematical property of holding constant the relative percentage importance of the constituent currencies regardless of the magnitude of individual currency shifts. Arithmetic weighting, by contrast, confers ever-increasing percentage weight on currencies that consistently depreciate against the dollar with the passage of time. By now, this bias has caused the broad Treasury index substantially to parallel the course of certain chronically depreciating Latin American currencies rather than those of the major U.S. trade partners. As a result, this index has risen over 150% since early 1985.

Besides the choice of currencies for inclusion, several other issues must be satisfactorily resolved to obtain reliable indices of competitiveness. First is the matter of assigning weights to the included currencies. Most, but not all, of the available dollar indices draw upon the readily available data on U.S. bilateral trade in *all goods,* that is, both manufactures and primary commodities, including petroleum, for weighting purposes. This ignores not only the distortions of agricultural prices through support and subsidy programs, but also the restriction of agricultural trade by quantitative means in most significant national markets, which minimizes exchange rate influences. More important, international oil trade is characterized by pricing practices that are overwhelmingly dollar-based and that also — apart from quality, transport, and tax differentials — lack differentiation among national markets in any way relevant to issues of dollar competitiveness. Failure to exclude the large U.S. petroleum trade from the weighting of a dollar index unreasonably skews the results toward the currencies of such countries as Mexico and Venezuela — currencies that have not appreciated against the dollar. Morgan's effective exchange rate indices therefore use weights derived from data on trade in *manufactured goods alone.*

Second is the issue of precisely how weights may be derived most appropriately from the chosen trade data. The great majority of dollar indices assign fixed currency weights in proportion to the value of bilateral U.S. trade with the corresponding trading partners. Morgan's traditional index, geared to industrial-country currencies only, is no exception. Its weights, which are updated periodically, have been drawn since 1983 from data on 1980 manufactures trade. The procedure has the merit of transparency. And it recognizes that the U.S.-Canadian trade and currency relationship is of much greater significance in appraising U.S. competitiveness than, say, the U.S.-U.K. connection. The index may be viewed as a blend of two subindices: one, weighted by U.S. bilateral imports, gauges the competitiveness of foreign exporters to the United States vis-à-vis domestic producers; the other, weighted by U.S. bilateral exports, gauges the position of U.S. producers selling into foreign markets.

Direct bilateral export weights, however, do not offer an entirely satisfactory approach to measuring export competitiveness. Besides including LDC currencies, Morgan's broad effective index for the dollar measures U.S. export competitiveness using a procedure recognizing that in selling to the German domestic market, for example, German firms are not the only rivals of U.S. firms. In 1980 German producers commanded only about 75% of the German domestic market for manufactures, measured by value added in domestic manufacturing plus imports from industrial and developing countries. U.S. exporters took less than 2%, while 15% went to competitors from other EC countries, 1.5%

Table 10

Weights in the Morgan effective exchange rate indices for the dollar

percent

	*Traditional**	*Broad***
Canada	30.3	20.7
Japan	23.2	18.5
Germany	10.9	9.9
United Kingdom	9.2	8.2
France	5.9	5.1
Mexico	—	4.6
Italy	4.1	3.7
Taiwan	—	3.1
Belgium	3.5	2.2
Brazil	—	2.2
Korea	—	2.1
Hong Kong	—	2.0
Netherlands	3.0	2.0
Switzerland	2.8	1.8
Australia	2.4	1.7
Sweden	1.7	1.5
Spain	1.4	1.3
Venezuela	—	1.1
Argentina	—	1.0
Singapore	—	0.9
Saudi Arabia	—	0.5
Austria	0.4	0.5
Chile	—	0.5
Colombia	—	0.5
Denmark	0.6	0.4
Finland	—	0.4
India	—	0.4
Malaysia	—	0.4
Norway	0.6	0.4
Peru	—	0.4
Ireland	—	0.3
Ecuador	—	0.2
Greece	—	0.2
Indonesia	—	0.2
Kuwait	—	0.2
New Zealand	—	0.2
Philippines	—	0.2
Portugal	—	0.2
Thailand	—	0.2
Pakistan	—	0.1

*Based on 1980 direct bilateral trade in manufactures.

**Modified weights based on 1980 bilateral trade in manufactures. The element of the Morgan index representing U.S. competitiveness in the German market relates the value of the dollar to a weighted-average value of the mark and the currencies of all significant U.S. competitors, setting the weights in proportion to the shares of German and the 39 other principal industrial- and developing-country competitors in the German domestic market. Similarly constructed elements representing U.S. export competitiveness in each of 40 U.S. foreign markets then are averaged together, with weights in proportion to U.S. bilateral exports to each market, to form an overall index of U.S. export competitiveness. Finally, the broad index blends this export measure with a traditionally calculated index of U.S. import competitiveness. Mathematically, this three-step procedure can be condensed into a single-step weighted averaging, using the "modified" bilateral manufactures trade weights shown here in the case of the dollar calculation. See also *World Financial Markets,* August 1983.

to Japanese rivals, and a further slice to LDC suppliers. To evaluate U.S. export competitiveness in the German domestic market appropriately, it is therefore important to assess the position of U.S. firms not just against German firms, but also against the entire range of other significant competitors, including LDCs. Morgan's broad index accomplishes this by modifying the weights attached to its constituent currencies, following the methodology summarized in the note to Table 10.

Using these modified manufactures trade weights in place of total-trade weights, but retaining the same 40 currencies as before, the dollar's average nominal depreciation since its February 1985 peak amounts to 12% — distinctly less than the 25% depreciation shown by the traditional index restricted to industrial-country currencies, but still substantial. This figure is decidedly greater than that calculated by the Dallas Federal Reserve.

The third, and by far the most significant, issue concerns the necessity to adjust for the inflation differentials between the United States and its trade partners in order to reach useful conclusions about changes in U.S. competitiveness over time. This necessity should immediately be apparent from the fact that if U.S. selling prices hold constant in dollar terms while the local-currency selling prices of the domestic firms of a U.S. trading partner happen to double, then a 50% depreciation of the partner's currency relative to the dollar leaves the U.S. competitive position unchanged, not diminished. Although inflation differentials have narrowed greatly among the industrial countries since the 1981-82 recession, they were both sizable and variable during the 1970s and could become so again in the future. Inflation in many developing countries, notably in Latin America, has long been very much higher than in industrial countries. Once these high-inflation developing-country exchange rates are included in a dollar index, a purely nominal construct loses all utility for gauging U.S. trade competitiveness.

Several possible approaches to inflation adjustment have merit. Whichever approach is taken has to be applied consistently and also should appeal to comparable price data pertaining to internationally traded goods. This latter requirement rules out the most familiar national price data — those for consumer prices or the GNP deflator — because these assign heavy and highly disparate weights to services and other items shielded from global market forces. Admittedly, the many practical problems of price data quality, comparability, and lack of timeliness cannot be wholly overcome and a degree of subjective judgment is required. For these reasons, most published exchange rate indices, whether from private or official sources, fight shy of any attempt at inflation correction. Yet "best efforts" are essential to assure reasonable accuracy of inferences concerning competitiveness.[*] To this end, the Morgan real effective exchange rate indices seek to correct the nominal indices for differential inflation in wholesale or producer output prices for intermediate and finished manufactures excluding food and fuel.

Until this year it has usually proved the case that, following careful inflation correction, the extension of dollar indices to take in LDC currencies makes little difference to a numerical assessment of the dollar's real exchange value. Movements in the Morgan dollar index covering industrial-country currencies alone have generally exceeded those in the broad index; as Chart 5 makes clear, the two indices typically parallel each other in direc-

---

[*] The United States and Britain publish single price indices that are judged to be of acceptable quality, coverage, and timeliness for use without modification. For most other countries, it is necessary to construct composites of selected subcomponents of overall price indices in order to attain reasonable comparability. Available subcomponents permit the exclusion of food prices, and generally fuel or energy prices also, from the overall manufactures price indices of virtually all industrial and developing countries covered in the Morgan effective exchange rate indices.

In some countries, even though the available price indices for manufactures can most often be chosen to capture output prices and exclude input prices, no adequate distinction may be possible among outputs of raw materials, intermediate goods, and finished products. On occasion, the available indices exclude exports, applying only to manufactured goods sold in the domestic market; cover imported as well as domestically produced items; include nontradable items, such as the output of local utilities or building contractors; and may or may not reflect indirect taxes. A few countries fail to compile wholesale or producer price indices, necessitating resort to components of a consumer or retail index. In all, uncomfortable compromise choices are unavoidable. Yet further difficulties arise from tardy availability of the chosen data. These lag the current date by at least a month or, exceptionally, up to eight months. The available data then must be brought forward in time, either with the aid of an inferior, but more up-to-date, proxy price index or by trend-line extrapolation.

Table 11

Dollar effective exchange rate

1980-1982=100

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Nominal against 15 other industrial-country currencies													
1970	114.2	114.2	114.1	114.1	114.1	113.0	112.9	112.4	112.2	112.4	112.3	112.2	113.2
1971	111.9	111.6	111.6	111.7	111.3	111.5	111.4	110.5	108.5	107.3	107.0	105.3	110.0
1972	104.0	102.9	102.2	102.3	102.1	101.7	102.1	102.2	102.3	102.6	102.9	103.2	102.6
1973	103.1	98.6	95.4	96.2	95.5	93.6	91.7	93.1	93.3	92.9	95.6	97.1	95.5
1974	100.8	98.6	96.5	95.2	94.4	95.5	96.3	98.0	98.5	98.0	97.4	96.5	97.2
1975	95.5	94.3	93.6	95.0	95.1	95.2	97.7	99.5	100.2	100.1	99.9	100.6	97.3
1976	100.2	99.8	100.5	101.0	101.1	101.3	100.9	100.8	100.1	100.4	101.1	101.9	100.8
1977	101.3	101.5	101.7	101.1	101.1	101.0	99.8	100.7	100.9	99.8	98.5	96.7	100.4
1978	95.7	95.6	94.7	94.4	95.2	93.5	91.2	89.3	89.5	87.4	89.5	89.8	92.2
1979	89.7	90.2	90.3	90.9	91.7	91.6	89.6	90.1	90.0	91.3	92.7	91.1	90.8
1980	90.3	91.0	93.9	94.7	90.7	88.6	88.4	89.5	88.7	88.9	91.1	92.0	90.7
1981	91.5	94.5	94.7	96.6	99.8	101.9	104.3	105.9	103.0	102.2	100.2	100.3	99.5
1982	101.8	104.9	106.7	107.9	105.9	111.1	112.3	112.5	113.3	114.9	115.0	111.3	109.8
1983	109.7	111.0	112.0	112.5	112.2	114.3	115.1	117.0	116.7	114.8	116.5	118.0	114.2
1984	119.1	117.3	115.4	116.7	119.5	120.2	124.2	124.0	127.3	128.5	126.8	129.5	122.4
1985	132.0	136.4	136.9	131.7	132.0	130.5	125.8	124.0	125.2	118.9	117.0	116.1	127.1
1986	115.1	111.2	109.0	108.1	105.8	106.5	104.0	102.3	102.2	102.1			
Real against 15 other industrial-country currencies													
1970	111.9	111.6	111.3	111.0	111.4	110.8	110.9	110.4	110.2	110.9	110.8	110.6	111.0
1971	110.4	110.5	110.5	110.8	110.5	110.9	111.1	110.5	108.3	107.0	106.6	105.0	109.4
1972	103.9	102.9	102.1	102.1	102.0	101.7	102.0	101.9	101.6	101.3	101.0	100.6	102.0
1973	100.2	95.5	92.2	93.2	92.7	90.5	87.6	88.5	86.0	87.1	89.5	89.5	91.2
1974	91.0	88.0	86.9	86.6	87.6	89.9	91.5	94.7	95.6	95.4	95.0	94.0	91.3
1975	89.8	88.8	88.2	89.3	89.4	89.5	82.7	93.4	94.0	94.3	94.3	95.1	90.7
1976	97.6	97.1	97.5	97.6	97.4	97.6	96.9	96.6	96.1	96.6	97.1	97.6	97.2
1977	96.8	96.8	97.1	96.5	96.4	96.5	95.6	96.5	97.0	96.2	94.9	93.3	96.2
1978	92.6	92.7	92.0	91.8	93.0	91.6	89.7	88.0	88.4	86.5	88.8	89.1	90.4
1979	88.9	89.5	89.6	90.4	91.0	90.7	88.7	88.9	88.7	90.4	91.7	90.2	89.9
1980	89.4	90.3	93.2	93.8	89.4	87.4	87.3	88.7	87.5	88.5	90.7	92.2	89.9
1981	92.3	95.5	95.9	98.2	101.3	103.3	106.0	107.4	104.1	103.6	101.5	101.3	100.8
1982	102.6	105.2	106.6	107.6	105.7	110.4	111.5	111.6	111.9	114.0	113.9	110.3	109.3
1983	108.5	110.2	110.9	111.1	110.7	112.6	113.6	115.4	114.8	113.3	114.7	116.2	112.7
1984	117.2	115.4	113.3	114.5	116.9	117.7	121.2	121.1	123.6	124.9	123.3	125.7	119.6
1985	128.1	132.2	132.0	126.9	127.0	125.6	121.3	119.4	119.7	114.5	112.5	111.7	122.5
1986	110.4	106.7	104.6	103.6	101.5	102.1	99.7	98.1	97.5	98.3			
Real against 18 other industrial-country and 22 developing-country currencies													
1970	112.7	112.4	112.1	111.8	112.6	112.6	112.5	112.2	111.9	112.6	112.4	112.2	112.4
1971	111.7	111.8	111.8	112.2	111.7	112.1	112.6	112.3	110.3	109.5	109.2	108.1	111.2
1972	106.6	105.7	105.0	105.1	104.6	104.9	105.1	105.1	104.7	104.3	103.9	103.5	104.9
1973	102.4	97.9	95.0	95.8	95.0	93.2	90.2	90.7	90.0	89.1	91.0	90.8	93.4
1974	91.5	88.2	87.4	87.8	88.9	91.0	92.6	95.6	96.5	96.2	95.9	95.3	92.2
1975	91.3	90.5	90.5	91.3	91.2	91.3	86.7	94.6	95.5	96.1	96.0	96.8	92.7
1976	98.8	98.2	98.4	98.5	98.3	98.5	97.6	97.1	98.4	98.8	99.2	99.1	98.5
1977	98.3	98.6	98.8	98.3	98.3	98.1	97.3	98.1	98.6	97.8	96.8	95.6	97.9
1978	94.7	94.8	94.2	94.1	95.1	93.9	92.1	90.7	90.8	89.1	91.2	91.4	92.7
1979	90.9	91.3	91.4	92.2	92.6	92.1	90.1	90.1	89.9	91.5	92.5	91.4	91.4
1980	90.8	91.5	93.7	94.0	90.1	88.3	88.1	89.2	88.1	89.1	90.8	92.1	90.5
1981	92.1	94.8	95.1	97.3	100.0	101.9	104.1	105.5	103.0	102.7	100.8	100.8	99.8
1982	102.0	104.7	107.3	107.8	106.0	109.8	110.8	113.0	113.5	114.5	114.6	112.1	109.7
1983	110.7	112.4	113.1	113.5	113.3	114.7	115.6	117.4	116.9	115.8	116.8	118.1	114.9
1984	118.7	117.1	115.8	116.7	118.8	119.1	122.0	121.9	124.1	125.2	124.0	126.2	120.8
1985	128.1	131.5	131.2	127.0	127.3	126.2	123.0	122.1	122.6	117.9	116.2	115.5	124.0
1986	114.6	111.3	109.7	109.0	107.1	107.4	105.5	104.2	103.7	104.3			

tion and timing. In other words, they have been closely correlated and, when used in econometric forecasting, have not differed significantly in their implications for the U.S. trade balance.

However, the correlation now may be weakening. Through this past October Morgan's traditional real index for the dollar, based on the currencies of 15 industrial countries that account for about two-thirds of all U.S. trade in manufactures, has fallen by 25% from its 1985 peak. The inflation-corrected broad index for the dollar, based on the currencies of 40 U.S. trade partners, including LDCs, which cover about 90% of all U.S. trade in manufactures, shows a fall of 20%. Thus although the narrow and broad indices tell much the same story — a story of substantial dollar depreciation — a potentially significant divergence has opened up between the two in 1986. This divergence warrants continued monitoring of U.S.-LDC currency relationships to assure a sound grasp of the overall U.S. competitive position.

Accordingly, starting with the present issue, the statistical appendix to this publication reports the broad real effective exchange rate index for the dollar, including LDC currencies, in addition to the traditional nominal and real indices based on the major internationally traded currencies alone. The real indices are subject to revision for recent periods as more complete price information becomes available. Historical data for the three dollar indices going back to 1970 are shown in Table 11. Similar broad real indices are shown in the appendix for the currencies of other industrial and developing countries (with the exceptions of Israel and Turkey, whose published trade data do not permit inclusion of LDC trade partners). The inflation corrections incorporate the results of a thorough recent review of the appropriateness and availability of national price data. As noted above, such review is an ongoing process. For the time being, the indices continue to be computed on the basis of 1980 trade data. Past experience has shown that substitution of more recent trade figures rarely has a major impact on the exchange rate indices. Nonetheless, when a reasonably complete international trade matrix for manufactures becomes available for 1985, the weights in the Morgan indices will be updated.

Statistical appendix

For key to data in tables see September 1986 issue.

Effective exchange rates — industrial countries, 20

Real effective exchange rates — developing countries, 21

International banking market size, 21

International bond issues and bank credits, 22

Eurocurrency deposit rates, 23

International bond yields, 23

Central bank discount rates, 24

Day-to-day money rates, 24

Treasury bill rates, 25

Representative money market rates, 25

Commercial bank deposit rates, 26

Domestic government bond yields, 26

Commercial bank lending rates to prime borrowers, 27

Domestic corporate bond yields, 27

Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates – industrial countries

Index numbers, 1980-82 average=100.

Nominal against 15 other industrial-country currencies

		United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
1980		90.7	100.4	95.5	96.0	106.5	100.0	108.4	99.8	99.4	105.9	100.2	106.5	95.4	105.1	98.2	103.9
1981		99.5	100.2	105.8	104.0	100.4	97.2	98.8	102.1	98.9	101.8	97.1	99.4	98.3	99.2	100.1	103.3
1982		109.8	99.4	98.6	100.1	93.1	102.8	92.8	98.1	101.7	92.3	102.7	94.1	106.3	95.7	101.7	92.8
1983		114.2	100.8	107.8	92.0	87.3	107.6	90.3	91.6	103.6	90.0	105.0	78.4	111.5	96.4	99.4	82.2
1984		122.4	97.3	113.0	94.2	84.4	107.4	86.7	88.1	103.6	88.9	104.0	77.4	110.5	93.9	97.8	84.3
1985		127.1	92.8	115.8	76.3	85.4	107.8	82.1	88.2	104.2	89.5	104.0	75.6	109.5	95.0	95.6	83.9
1986																	
May		105.8	88.4	150.9	66.5	86.5	114.5	82.0	84.9	107.0	92.6	109.1	73.6	115.8	98.7	89.8	82.0
June		106.5	87.6	151.1	63.2	86.5	114.6	82.0	84.5	107.1	92.6	109.2	73.2	117.1	98.9	87.8	81.8
July		104.0	87.8	158.6	56.4	86.3	115.8	82.8	82.2	107.5	92.7	110.3	74.0	120.2	99.1	87.3	81.4
August		102.3	87.0	161.7	54.2	86.4	117.6	83.7	78.8	108.1	93.4	111.7	74.0	122.7	100.4	86.7	81.0
September		102.2	87.1	160.8	55.1	86.5	118.3	83.9	77.5	108.5	93.8	112.0	73.7	122.7	100.5	86.6	81.0
October		102.1	87.0	158.4	56.8	87.3	119.4	84.4	74.4	109.0	94.3	112.9	73.4	122.3	102.1	85.9	80.8
September	19	101.7	87.0	160.6	55.2	86.6	118.5	84.1	77.3	108.6	93.9	112.1	73.8	123.2	100.6	86.7	81.0
	26	102.3	87.1	161.4	56.0	86.6	118.4	84.0	76.3	108.5	93.9	112.1	73.6	122.9	101.0	86.3	81.0
October	3	101.8	87.0	161.1	55.8	86.9	118.9	84.2	75.3	108.7	94.2	112.5	73.8	123.2	101.6	85.9	80.9
	10	101.5	87.1	160.4	56.3	87.3	119.4	84.4	74.2	109.0	94.5	112.9	73.8	123.2	102.2	85.9	80.9
	17	101.2	86.8	160.0	56.5	87.5	119.8	84.6	74.1	109.2	94.5	113.1	73.8	122.7	102.5	86.0	80.8
	24	102.1	86.9	157.8	56.9	87.4	119.6	84.5	74.3	109.1	94.4	113.0	73.3	122.2	102.4	86.0	80.8
	31	103.7	87.3	154.7	57.9	87.3	119.1	84.3	74.6	108.9	94.1	112.6	72.7	120.8	102.0	86.2	81.0
November	7	104.3	87.4	152.7	58.2	87.2	118.8	84.1	75.9	108.9	93.9	112.4	72.6	119.6	101.7	85.9	81.0
	14	103.1	87.4	153.9	58.0	87.3	119.4	84.4	75.2	109.1	94.2	112.9	72.7	120.7	102.1	85.1	80.8

Real against 15 other industrial-country currencies

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
1980	89.9	99.9	102.8	91.7	102.8	103.2	102.5	98.7	99.4	106.6	102.4	101.4	98.3	103.2	95.4	102.5
1981	100.8	99.5	104.8	102.6	100.0	96.9	98.9	102.5	99.4	101.4	97.1	99.6	98.7	98.9	101.3	101.9
1982	109.3	100.6	92.4	105.7	97.3	99.9	98.5	98.8	101.2	91.9	100.5	99.0	103.0	97.9	103.2	95.6
1983	112.7	102.6	96.8	101.9	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.9	105.1	100.4	102.0	90.7
1984	119.8	100.2	97.8	106.4	97.0	98.0	101.8	90.2	103.0	85.9	97.8	91.1	100.1	99.2	100.5	96.0
1985	122.5	96.5	96.6	89.5	100.5	96.7	100.2	92.8	103.3	85.3	96.6	92.5	98.0	101.2	99.5	96.9
1986																
May	101.5	94.0	120.4	84.1	102.4	102.3	101.6	91.9	105.6	84.2	101.3	94.1	102.9	106.8	95.3	96.3
June	102.1	93.3	120.2	80.1	102.8	102.1	101.8	91.5	105.8	84.1	100.5	93.7	104.8	107.0	95.4	96.0
July	99.7	93.5	125.2	72.3	103.0	103.6	103.0	89.3	106.1	83.7	99.3	95.6	107.9	106.6	95.6	95.7
August	98.1	93.1	127.3	69.8	102.7	104.8	104.6	85.9	106.9	84.6	101.3	95.8	109.5	108.8	92.7	95.2
September	97.5	93.6	126.8	71.1	102.4	105.3	105.0	84.5	107.0	84.6	102.5	95.7	109.6	108.9	95.2	94.9
October	98.3	92.9	123.8	73.6	102.9	106.0	106.1	81.3	107.5	84.8	104.1	95.8	109.9	110.9	94.5	94.4

Real against 18 other industrial-country and 22 LDC currencies

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
1980	90.5	98.9	101.3	92.3	103.6	104.5	103.7	99.5	100.0	107.5	103.9	102.2	99.3	103.6	95.8	103.0
1981	99.8	99.4	104.7	102.5	99.5	96.2	98.2	102.0	98.9	100.9	96.6	98.9	98.0	98.7	101.3	101.6
1982	109.7	101.7	94.0	105.2	96.9	99.3	98.1	98.5	101.1	91.6	99.4	99.0	102.6	97.7	103.0	95.4
1983	114.9	104.5	100.4	102.1	94.4	100.6	100.8	93.0	102.1	88.2	99.5	89.3	105.1	100.3	101.9	91.0
1984	120.8	102.7	102.3	106.7	96.4	96.8	101.0	89.7	102.6	85.0	95.8	91.3	99.8	99.0	100.6	95.8
1985	124.0	99.2	101.6	90.1	100.0	95.8	99.8	92.3	102.9	84.5	94.8	93.2	97.8	101.3	99.9	96.9
1986																
May	107.1	95.1	125.2	95.9	102.8	103.0	102.8	92.4	106.1	84.5	100.9	96.4	104.2	107.2	96.0	96.9
June	107.4	94.4	124.9	81.9	103.2	102.8	103.0	92.0	106.4	84.4	100.2	96.0	106.2	107.4	96.2	96.7
July	105.5	94.5	129.7	74.2	103.6	104.5	104.3	89.9	107.0	84.1	99.1	98.0	109.6	107.1	96.4	96.4
August	104.2	93.9	131.7	72.0	103.5	106.2	106.3	86.9	107.9	85.2	101.4	98.6	111.6	109.3	93.6	95.9
September	103.7	94.3	131.5	73.4	103.3	106.7	106.8	85.6	108.2	85.4	102.8	98.5	111.8	109.5	96.1	95.7
October	104.3	93.6	128.6	75.7	103.8	107.5	108.0	82.4	108.7	85.6	104.5	98.8	112.4	111.4	95.2	95.2

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1980	115.2	83.8	94.4	93.5	102.6	92.1	90.1	99.5	88.4	97.8	95.0	92.1	97.2	101.6	92.1	99.4
1981	107.8	103.3	108.3	100.6	114.4	103.3	99.7	98.9	99.8	100.3	99.4	101.3	102.0	101.8	99.3	104.7
1982	77.0	112.9	97.3	105.9	82.9	104.6	110.2	101.6	111.7	101.9	105.6	106.7	100.8	96.6	108.6	96.0
1983	71.5	86.2	89.2	104.9	78.8	98.4	117.2	95.8	96.3	97.6	113.9	96.1	101.7	94.5	120.8	93.5
1984	80.1	85.7	90.1	99.6	91.8	105.8	85.9	100.2	96.9	96.5	119.7	107.9	102.4	97.0	119.5	91.1
1985	71.3	84.1	79.8	85.7	90.5	96.5	93.0	104.2	95.8	89.2	116.3	114.6	95.7	94.6	106.8	91.5
1986																
January	63.3	79.6	70.9	72.7	72.5	91.2	90.3	96.5	85.8	79.8	107.1	105.1	87.9	87.8	101.3	82.8
February	61.7	81.7	67.9	71.2	70.2	91.0	89.6	95.0	82.6	77.9	102.9	94.0	84.9	86.7	100.2	80.3
March	62.0	75.2	67.0	70.7	68.3	90.5	89.0	94.5	80.5	76.9	97.6	91.3	82.8	86.7	99.0	74.3
April	61.8	73.6	68.4	70.1	66.6	93.8	89.7	95.5	80.0	76.6	94.5	89.8	81.9	88.7	100.7	71.9
May	60.8	72.7	68.5	68.0	65.6	95.7	90.1	95.2	78.9	75.1	92.9	88.3	79.8	88.4	101.5	71.3
June	61.3	73.0	70.2	67.1	66.6	99.2	90.0	96.2	79.0	75.4	93.1	87.3	81.3	89.4	101.8	70.8
July	61.5	72.0	69.4	65.8	64.9	101.8	89.4	93.3	76.7	70.7	91.0	87.7	81.6	89.1	100.8	69.7
August	61.1	72.0	68.7	65.0	62.3	104.7	89.0	92.0	75.4	69.9	90.7	85.0	76.7	89.0	99.4	67.7
September	58.5	75.3	67.4	64.3	60.9	108.0	89.1	93.8	60.8	70.4	90.8	84.7	78.9	90.2	100.8	66.8

International banking market size

at end of period, billions of dollars

	1981	1982	1983	1984	1985			1986	
					Jun	Sep	Dec	Mar	Jun
Gross claims									
Eurocurrencies, on residents and nonresidents	**1 929**	**2 146**	**2 253**	**2 359**	**2 459**	**2 622**	**2 833**	**2 947**	**3 040**
On nonbanks	557	634	665	694	735	761	822	854	875
On banks	1 372	1 512	1 588	1 665	1 724	1 861	2 011	2 093	2 165
In dollars	1 504	1 694	1 797	1 894	1 924	2 002	2 101	2 138	2 166
In other currencies	425	452	456	465	535	620	732	809	874
Domestic currencies, on nonresidents	**365**	**398**	**398**	**402**	**422**	**451**	**506**	**535**	**578**
On nonbanks	128	132	136	142	150	165	187	186	201
On banks	237	266	262	260	272	286	319	349	377
In dollars	188	211	217	215	209	205	215	203	210
In other currencies	177	187	181	187	213	246	291	332	368
Total	**2 294**	**2 544**	**2 651**	**2 761**	**2 881**	**3 073**	**3 339**	**3 482**	**3 618**
On nonbanks	685	766	801	836	885	926	1 009	1 040	1 076
On banks	1 609	1 778	850	1 925	1 996	2 147	2 330	2 442	2 542
In dollars	1 692	1 905	2 014	2 109	2 133	2 207	2 316	2 341	2 376
In other currencies	602	639	637	652	748	866	1 023	1 141	1 242
Gross liabilities									
Eurocurrencies, to residents and nonresidents	**1 954**	**2 168**	**2 278**	**2 386**	**2 471**	**2 641**	**2 846**	**2 964**	**3 059**
To nonbanks	372	432	479	497	520	546	585	610	632
To official monetary institutions	112	91	88	96	106	109	112	106	109
To other banks	1 470	1 645	1 711	1 793	1 845	1 986	2 149	2 248	2 318
In dollars	1 539	1 741	1 846	1 950	1 969	2 045	2 147	2 166	2 204
In other currencies	415	427	432	436	502	596	699	798	855
Domestic currencies, to nonresidents	**263**	**250**	**260**	**280**	**310**	**341**	**377**	**394**	**418**
To nonbanks	74	70	73	80	89	103	114	121	121
To banks	189	180	187	200	221	238	263	273	297
In dollars	126	116	135	146	154	159	169	166	171
In other currencies	137	134	125	134	156	182	208	228	247
Total	**2 217**	**2 418**	**2 538**	**2 666**	**2 781**	**2 982**	**3 223**	**3 358**	**3 477**
To nonbanks	446	502	552	577	609	649	699	731	753
To banks and official institutions	1 771	1 916	1 986	2 089	2 172	2 333	2 529	2 627	2 724
In dollars	1 665	1 857	1 981	2 096	2 123	2 204	2 316	2 332	2 375
In other currencies	552	561	557	570	658	778	907	1 026	1 102
Net market size	**1 155**	**1 285**	**1 382**	**1 430**	**1 497**	**1 572**	**1 676**	**1 735**	**1 800**

International bond issues and bank credits

millions of dollars

	1983	1984	1985	1986			Jan-Sep	
				Jul	Aug	Sep	1986	1985
By country of borrower								
Industrial countries	**102 652**	**177 077**	**226 711**	**23 785**	**21 612**	**27 766**	**206 924**	**156 851**
Australia	5 737	5 816	14 407	448	1 117	2 257	13 230	8 523
Austria	1 290	2 254	2 435	177	193	584	3 083	1 930
Belgium	2 168	1 847	3 269	702	142	531	4 116	2 065
Canada	8 571	13 124	17 184	2 008	1 700	1 130	13 951	13 448
Denmark	3 941	4 825	3 589	597	1 788	1 096	5 699	2 808
Finland	1 271	1 713	1 846	264	403	339	2 363	1 176
France	8 626	11 298	18 773	3 092	1 722	1 444	13 244	14 728
Germany	3 197	2 165	3 452	1 378	913	1 083	9 020	2 051
Greece	1 291	1 551	1 588	140	98	50	952	1 588
Ireland	1 869	1 377	1 881	1 054	590	100	3 308	1 247
Italy	4 876	6 933	11 033	1 365	248	1 314	10 800	8 474
Japan	14 428	17 526	21 269	3789	2 428	2 913	24 924	16 189
Netherlands	1 213	1 973	2 299	285	310	395	2 682	1 681
New Zealand	802	3 208	2 707	500	909	455	5 138	1 823
Norway	1 969	1 324	3 905	789	1 301	356	4 560	3 003
Portugal	1 030	1 796	2 382	128	390	—	2 127	1 594
South Africa	1 300	1 422	825	—	—	—	—	825
Spain	4 977	4 931	3 913	1 271	50	1 237	5 441	3 496
Sweden	7 144	11 256	9 890	267	32	730	6 978	8 255
United Kingdom	2 726	8 899	25 424	1 679	2 932	6 759	23 549	17 167
United States	20 276	65 054	69 194	3 719	4 347	4 658	48 479	40 895
*Other**	3 950	6 785	5 447	135	—	338	3 280	3 865
Developing countries	**38 256**	**39 725**	**32 139**	**1 340**	**1 137**	**2 174**	**18 010**	**23 901**
Latin American countries	**15 592**	**17 464**	**8 115**	**152**	**146**	**291**	**2 086**	**5 609**
Argentina	1 750	4 212	3 700	—	—	—	17	3 700
Brazil	4 475	6 649	—	—	—	—	—	—
Chile	1 405	784	1 085	—	—	—	—	—
Colombia	552	589	1 052	50	39	—	89	52
Mexico	5 138	3 918	109	—	—	263	313	—
Venezuela	237	—	48	—	—	—	—	—
*Other***	2 035	1 312	2 121	102	107	28	1 667	1 857
Asian countries	**12 978**	**15 893**	**18 410**	**991**	**639**	**1 302**	**11 276**	**14 396**
India	968	945	818	34	85	130	949	476
Indonesia	2 363	1 924	451	25	—	—	1 008	451
Korea	4 387	6 201	5 898	327	50	70	2 637	4 707
Malaysia	2 197	2 605	2 220	310	—	543	1 305	1 713
Philippines	878	925	925	—	—	—	—	925
Thailand	747	1 221	1 497	—	—	—	1 016	1 101
Other	1 438	2 072	6 602	295	504	559	4 362	5 023
Middle Eastern and African countries	**9 686**	**6 368**	**5 614**	**197**	**352**	**580**	**4 647**	**3 895**
Algeria	1 993	821	1 450	147	52	—	996	1 300
Nigeria	2 343	985	—	—	—	—	—	—
Turkey	1 106	741	1 203	—	250	429	1 901	654
Other	4 244	3 821	2 960	50	50	152	1 751	1 942
Eastern European countries	**1 294**	**3 244**	**5 236**	**1 016**	**73**	**273**	**3 580**	**4 098**
Hungary	741	1 386	1 578	256	73	—	1 149	1 162
Soviet Union	93	1 051	1 489	50	—	223	1 521	1 191
*Other****	460	807	2 169	710	—	50	910	1 744
International organizations******	**16 201**	**13 287**	**20 635**	**2 074**	**833**	**1 770**	**13 811**	**15 721**
By type of instrument and currency								
International bond issues	**76 329**	**107 411**	**167 756**	**20 078**	**16 282**	**25 391**	**174 123**	**121 148**
Eurobonds	48 501	79 458	136 731	16 977	16 622	22 310	147 680	99 741
U.S. dollar	38 428	63 593	97 782	9 714	12 205	14 225	91 673	73 382
German mark	3 817	4 604	9 491	2 281	1 076	1 543	14 193	4 998
British pound	1 947	3 997	5 766	1 054	739	1 558	10 021	3 806
Japanese yen	212	1 212	6 539	2 079	991	3 178	14 066	4 353
European composite units	2 019	3 032	7 038	445	259	271	5 346	5 278
Other	2 078	3 020	10 114	1 406	1 352	1 535	12 381	7 925
Foreign bonds	27 828	27 953	31 025	3 101	1 660	3 081	26 443	21 407
U.S. dollar	4 545	5 487	4 655	150	—	250	3 064	3 441
German mark	2 671	2 243	1 741	—	—	—	—	1 373
British pound	811	1 292	958	—	—	—	322	674
Swiss franc	14 299	12 626	14 954	2 132	1 390	1 875	16 481	9 140
Japanese yen	3 772	4 628	6 379	160	111	351	3 713	5 050
Other	1 730	1 677	2 339	659	159	606	2 864	1 730
International bank credits	**82 074**	**125 922**	**116 964**	**8 137**	**5 373**	**6 591**	**68 202**	**79 422**
Eurocurrency credits	74 222	112 605	110 317	7 162	4 626	5 462	61 993	74 880
Foreign credits	7 852	13 317	6 648	975	747	1 129	6 210	4 542
Total	**158 403**	**233 333**	**264 720**	**28 215**	**23 654**	**31 982**	**242 326**	**200 571**

*Includes multinational organizations. **Includes unallocated. ***Includes COMECON institutions. ****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1983	1984	1985	1986						
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct
Eurodollar										
overnight	9.50	8.63	12.25	6.88	6.81	8.25	6.25	5.88	5.88	5.75
one month	9.69	8.38	8.00	6.81	7.00	6.88	6.38	5.69	6.00	5.81
three months	9.81	8.63	7.88	6.75	7.00	6.75	6.38	5.56	6.00	5.81
six months	10.06	9.13	7.88	6.75	7.06	6.75	6.38	5.56	6.00	5.81
twelve months	10.38	9.81	7.94	6.81	7.25	6.81	6.50	5.69	6.19	5.88
Euro-Canadian dollar										
one month	9.13	9.88	9.00	8.38	8.38	8.06	8.06	8.06	7.94	8.06
three months	9.50	10.81	9.00	8.69	8.44	8.38	8.31	8.13	8.19	8.31
six months	9.75	10.06	9.00	8.69	8.50	8.56	8.50	8.50	8.50	8.50
twelve months	10.00	10.44	9.00	8.69	8.75	8.75	8.75	8.63	8.75	8.69
Euro-French franc										
one month	12.13	10.69	12.50	7.75	7.31	7.25	7.13	7.13	7.38	7.38
three months	12.19	10.69	13.00	7.50	7.31	7.31	7.19	7.25	7.88	7.19
six months	12.31	11.00	13.13	7.50	7.31	7.31	7.25	7.31	7.75	7.88
twelve months	12.63	11.38	12.25	7.38	7.50	7.38	7.31	7.38	8.63	7.88
Euromark										
one month	5.25	5.50	4.75	4.56	4.56	4.44	4.63	4.44	4.50	4.44
three months	5.88	5.50	4.75	4.50	4.56	4.50	4.56	4.31	4.50	4.50
six months	6.13	5.56	4.75	4.44	4.63	4.56	4.56	4.31	4.56	4.56
twelve months	6.38	5.56	4.81	4.44	4.75	4.63	4.63	4.31	4.63	4.63
Euro-Dutch guilder										
one month	5.81	5.69	5.75	5.75	6.13	6.25	5.56	5.25	5.31	5.31
three months	6.00	5.75	5.75	5.50	5.81	6.06	5.44	5.13	5.25	5.31
six months	6.25	5.81	5.81	5.38	5.63	5.81	5.38	5.06	5.25	5.31
twelve months	6.38	5.94	5.88	5.31	5.63	5.75	5.38	5.06	5.25	5.31
Euro-Swiss franc										
one month	3.38	4.44	3.88	4.13	4.88	5.00	4.63	4.19	3.81	2.94
three months	3.75	4.56	4.00	4.13	4.69	5.06	4.63	4.13	4.06	3.75
six months	3.94	4.63	4.00	4.06	4.56	4.88	4.63	4.13	4.06	3.75
twelve months	3.94	4.69	4.06	3.94	4.44	4.75	4.63	4.13	4.06	3.81
Eurosterling										
one month	9.13	9.50	11.69	10.81	10.00	10.06	9.94	10.00	10.50	10.81
three months	9.31	9.88	11.81	10.38	9.81	9.81	9.94	9.81	10.19	11.13
six months	9.50	10.00	11.81	9.81	9.69	9.69	9.88	9.63	10.75	11.13
twelve months	9.81	10.19	11.69	9.50	9.44	9.63	9.94	9.56	10.81	11.06
Euroyen										
one month	6.25	6.19	7.13	4.94	4.75	4.69	4.75	5.13	4.94	4.25
three months	6.31	6.19	6.56	4.81	4.75	4.88	4.75	4.75	4.88	4.56
six months	6.38	6.13	6.50	4.69	4.81	4.63	4.69	4.63	4.88	4.56
twelve months	6.44	6.13	6.38	4.69	4.88	4.63	4.69	4.63	4.88	4.56
European currency unit										
one month	8.81	9.25	9.63	7.94	7.31	7.38	7.25	7.25	7.25	7.44
three months	9.19	9.38	9.63	7.56	7.31	7.31	7.19	7.06	7.25	7.56
six months	9.44	9.50	9.63	7.38	7.31	7.25	7.19	6.88	7.25	7.50
twelve months	9.63	9.63	9.63	7.19	7.13	7.25	7.13	6.88	7.25	7.50

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years at or near end of month

	1984	1985	1986							
	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States companies										
Eurodollar	11.25	9.68	8.78	8.93	9.27	9.09	8.97	8.60	9.04	8.76
Euromark	6.95	6.73	6.67	6.62	6.74	6.65	6.55	6.55	6.73	6.66
Swiss franc	5.73	5.49	5.63	5.65	5.62	5.63	5.56	5.63	5.65	5.67
European governments										
Eurodollar	12.04	10.52	9.98	9.86	10.18	10.00	9.97	9.73	9.92	9.85
Euromark	7.39	7.03	6.77	6.82	6.92	6.95	6.81	6.64	6.63	6.78
Swiss franc	5.24	4.91	4.71	4.69	4.69	4.76	4.73	4.66	4.61	4.57
European currency unit	10.64	10.23	10.35	10.18	10.20	10.31	10.02	10.17	10.23	10.49

Central bank discount rates

at or near end of month

	1983	1984	1985	1986					Current	
	Dec	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov 13 1986	effective since
United States	8.50	8.00	7.50	6.50	6.00	5.50	5.50	5.50	5.50	Aug 21, 86
Canada	9.96	10.09	9.49	8.84	8.51	8.58	8.60	8.55	8.59	Nov 6, 86
Austria	3.75	4.50	4.00	4.00	4.00	4.00	4.00	4.00	4.00	Aug 19, 85
Belgium	10.00	11.00	9.75	8.00	8.00	8.00	8.00	8.00	8.00	May 29, 86
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.50	9.50	9.00	7.00	7.00	7.00	7.00	7.00	7.00	May 19, 86
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.00	4.50	4.00	3.50	3.50	3.50	3.50	3.50	3.50	Mar 7, 86
Ireland	12.25	14.00	10.25	10.00	10.00	10.00	10.00	13.25	13.25	Oct 24, 86
Italy	17.00	16.50	15.00	12.00	12.00	12.00	12.00	12.00	12.00	May 27, 86
Netherlands	5.00	5.00	5.00	4.50	4.50	4.50	4.50	4.50	4.50	Mar 7, 86
Norway	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jun 6, 83
Portugal	25.00	25.00	19.00	14.50	14.50	14.50	14.50	14.50	14.50	Jun 30, 86
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.50	9.50	10.50	8.00	8.00	8.00	7.50	7.50	7.50	Sep 19, 86
Switzerland	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	Mar 18, 83
United Kingdom	9.00	9.38	11.31	9.81	9.81	9.81	9.81	10.81	10.81	Oct 15, 86
Japan	5.00	5.00	5.00	3.50	3.50	3.50	3.50	3.50	3.00	Nov 1, 86
New Zealand	7.50	13.50	19.80	16.00	16.60	16.60	15.70	16.50	17.40	Nov 13, 86
South Africa	18.50	21.75	13.50	11.50	11.50	11.00	10.50	10.50	10.50	Sep 5, 86
Argentina*	15.10	18.19	5.00	6.20	6.68	8.79	9.79	10.59	10.59	Oct 22, 86
Korea	5.00	5.00	5.00	5.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 86
Philippines	8.05	12.11	11.50	10.04	n.a.	n.a.	n.a.	n.a.	n.a.	Jun, 86
Singapore	7.00	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Jul, 85
Thailand	13.00	12.00	11.00	10.00	9.00	9.00	8.00	8.00	8.00	Sep 1, 86
Venezuela	11.00	11.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	Mar, 85

*Percent per month.

Day-to-day money rates

monthly averages

	1983	1984	1985	1986							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	9.47	8.38	8.27	7.48	6.98	6.85	6.91	6.55	6.16	5.92	5.84
Canada	8.78	10.50	9.23	11.10	9.58	8.41	8.19	8.38	8.10	8.10	8.38
Austria	5.75	7.63	7.25	5.00	4.75	4.88	4.88	5.13	5.13	5.50	n.a.
Belgium	7.39	9.12	6.60	7.20	8.67	6.44	5.18	6.34	6.37	5.76	6.36
Finland	16.70	15.07	11.96	11.21	11.20	12.02	10.83	10.80	24.17	13.86	11.93
France	12.27	10.95	9.01	8.52	8.18	7.38	7.22	7.28	7.05	7.08	7.31
Germany	5.61	5.62	4.64	4.90	4.76	4.30	4.39	4.61	4.51	4.38	4.38
Ireland	12.19	14.50	9.62	14.75	12.63	10.50	9.50	9.63	9.75	9.63	n.a.
Italy	17.88	17.25	14.75	17.15	15.02	13.06	12.34	12.11	11.78	11.25	10.98
Netherlands	5.84	5.60	5.75	5.72	5.49	6.69	6.06	6.13	5.56	5.31	5.38
Norway	12.30	12.50	12.40	13.20	13.50	17.00	14.00	14.00	14.00	14.00	14.00
Spain	16.98	12.18	9.92	11.25	12.20	12.04	12.03	12.26	12.34	11.58	11.68
Sweden	11.52	11.88	11.83	10.83	11.65	11.30	9.88	9.56	9.52	8.92	n.a.
Switzerland	1.88	1.50	2.00	2.25	2.25	2.00	1.75	2.25	2.00	2.00	1.00
United Kingdom	7.78	6.31	9.72	12.09	8.96	8.55	10.53	8.98	8.70	8.06	11.19
Australia	4.55	10.98	18.37	16.74	15.06	12.31	13.20	13.43	16.42	17.22	17.13
Japan	6.44	6.41	8.02	5.53	4.70	4.21	4.39	4.50	4.55	4.60	4.37
South Africa	16.06	21.13	12.50	11.75	12.00	10.63	10.69	10.75	9.81	9.63	9.63
Argentina*	14.65	17.75	4.50	4.50	4.50	4.50	5.00	5.00	7.00	6.00	7.00
Brazil	184.69	272.02	352.23	15.12	16.64	15.50	18.30	25.93	35.60	45.58	n.a.
Hong Kong	13.90	6.80	6.10	6.48	7.81	6.02	6.91	5.95	5.64	4.93	3.21
Korea	11.40	10.00	8.80	9.70	11.00	10.30	10.00	10.60	9.30	9.50	9.30
Philippines	31.18	15.22	15.03	17.83	15.62	12.43	11.61	10.16	n.a.	n.a.	n.a.
Singapore	7.05	6.01	4.53	4.85	4.82	5.07	4.49	3.73	3.95	2.26	2.47
Taiwan	7.65	8.07	4.50	3.54	3.75	3.50	4.53	3.50	3.50	3.50	3.50

*Percent per month.

Treasury bill rates

bond equivalent yields, at or near end of month

	1983	1984	1985	1986						
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	9.28	7.99	7.25	6.50	6.24	6.45	6.13	5.93	5.23	5.30	5.25
Canada	9.71	9.84	9.24	10.19	9.02	8.33	8.59	8.26	8.33	8.35	8.30
Belgium	11.00	10.90	9.89	9.89	8.36	7.71	7.45	7.45	7.45	7.45	7.48
Ireland	12.01	15.10	11.15	12.08	9.69	8.76	9.16	10.13	10.65	10.61	n.a.
Italy	16.29	14.19	12.70	12.74	12.03	10.93	10.50	10.44	10.39	9.71	9.87
Netherlands	5.63	5.88	5.69	5.56	6.88	6.50	5.88	5.75	4.75	5.63	5.38
Spain	14.46	12.00	9.25	9.25	9.25	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Sweden	11.75	11.83	12.49	10.63	10.19	9.90	9.85	9.29	9.25	8.66	n.a.
United Kingdom	9.04	9.33	11.49	11.04	10.09	9.56	9.52	9.76	9.56	9.93	10.85
Australia	8.54	12.27	19.40	14.88	12.84	12.78	12.38	14.98	17.20	17.51	16.18
Japan	4.91	4.91	4.91	3.90	3.39	3.39	3.39	3.39	3.39	3.39	3.39
New Zealand	7.80	13.50	17.62	21.64	20.41	17.34	15.64	16.75	n.a.	n.a.	n.a.
South Africa	18.43	21.94	12.99	11.97	11.58	11.02	10.75	10.22	[illegible]	9.20	9.17
Brazil	179.15	273.03	379.77	15.40	16.79	15.90	18.60	26.30	36.00	42.00	45.00
Mexico	53.78	48.67	72.98	78.78	80.84	80.74	88.50	n.t.	n.t.	n.t.	n.a.
Philippines	15.99	47.14	16.45	23.56	19.65	15.79	14.67	14.59	n.a.	n.a.	n.a.
Singapore	2.59	2.91	2.94	2.64	2.58	2.35	2.42	2.54	2.15	2.01	1.99

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1983	1984	1985	1986							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	9.89	8.34	8.01	7.34	7.17	6.69	6.80	6.39	5.65	5.96	5.81
Canada	9.87	10.10	9.45	10.80	8.85	8.65	8.65	8.55	8.35	8.50	8.45
Belgium	11.15	10.85	9.89	8.52	8.11	7.71	7.40	7.40	7.40	7.35	7.35
France	12.19	10.69	9.12	8.37	7.50	7.24	7.24	7.25	7.13	7.43	7.50
Germany	6.30	5.75	4.80	4.65	4.60	4.60	4.55	4.65	4.30	4.40	4.60
Ireland	12.19	15.13	12.00	14.63	10.75	10.25	9.25	10.75	10.63	11.25	n.a.
Italy	17.88	16.88	15.13	15.00	12.75	12.13	12.25	11.38	11.00	n.a.	n.a.
Netherlands	6.00	5.75	5.75	5.50	5.56	6.00	6.19	5.56	5.25	5.44	5.44
Portugal	24.11	24.57	20.71	18.75	17.76	17.07	n.a.	n.a.	n.a.	n.a	n.a.
Spain	19.00	12.21	10.51	11.59	12.27	11.63	12.06	12.51	12.18	11.53	11.41
Switzerland	3.88	5.00	4.75	4.06	4.50	4.69	5.50	4.88	4.25	4.25	4.19
United Kingdom	9.31	9.88	12.75	11.06	10.13	9.69	9.75	9.88	9.63	10.38	11.13
Australia	9.05	12.90	19.75	16.20	16.10	14.85	14.80	15.10	17.70	17.85	16.45
Japan	6.45	6.33	7.03	5.16	4.53	4.66	4.64	4.65	4.53	4.75	4.54
New Zealand	11.75	15.00	20.00	22.30	21.30	16.10	17.10	16.80	16.30	16.50	16.50
South Africa	19.12	22.78	13.35	12.35	11.95	11.25	10.80	10.55	9.35	9.55	9.65
Chile	20.68	20.68	22.42	14.03	19.56	12.68	14.03	15.39	11.35	12.68	20.98
Hong Kong	14.88	8.25	6.50	7.25	7.81	6.02	6.75	6.31	5.00	5.25	4.38
Indonesia	19.50	19.00	15.00	20.25	16.50	16.00	15.00	15.00	14.00	14.50	14.25
Korea	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Malaysia	9.80	10.30	8.20	8.75	15.00	9.80	10.00	9.80	11.75	12.00	9.50
Philippines	15.61	33.21	14.61	26.45	19.32	14.57	12.28	12.47	n.a.	n.a.	n.a.
Singapore	8.44	7.00	5.88	5.00	4.94	5.06	4.88	4.31	3.94	3.25	2.94
Taiwan	8.07	7.85	4.10	3.37	3.99	3.58	3.68	3.27	2.81	2.65	2.65
Thailand	16.00	12.00	15.50	10.00	10.00	9.50	8.50	8.00	8.00	7.50	7.50

Commercial bank deposit rates

at or near end of month

	1983	1984	1985	1986							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	9.70	8.35	7.75	7.16	6.55	6.82	6.65	6.33	5.47	5.80	5.75
Canada	9.82	10.05	9.40	10.75	8.80	8.60	8.60	8.50	8.30	8.45	8.45
Austria	6.50	7.50	6.50	5.50	4.88	5.19	5.13	5.13	5.13	5.75	n.a.
Belgium	11.25	10.63	9.63	9.63	8.13	7.31	7.19	7.25	7.19	7.25	7.31
Denmark	6.00	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Finland	5.25	5.25	4.75	3.75	3.75	2.75	2.75	2.75	2.75	2.75	2.75
France	7.66	7.04	6.12	5.88	5.72	4.50	4.50	4.50	4.50	4.50	4.50
Germany	5.90	5.25	4.40	4.15	4.35	4.35	4.35	4.45	4.45	4.40	4.50
Ireland	11.75	14.63	11.87	14.50	10.75	10.00	10.00	10.00	10.00	10.50	12.00
Italy	13.25	11.64	11.85	11.75	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Netherlands	6.13	5.69	5.81	5.38	5.44	5.88	6.06	5.44	5.19	5.31	5.31
Norway	12.75	12.75	12.00	12.25	12.25	12.25	13.00	13.00	13.00	13.00	13.00
Portugal	21.50	28.00	20.00	20.00	18.50	18.50	15.50	15.50	15.50	15.50	n.a.
Spain	12.62	11.64	9.64	9.11	9.42	9.20	9.04	8.89	8.89	8.78	n.a.
Sweden	11.70	11.45	12.18	11.00	10.65	10.60	10.10	9.80	9.70	9.27	n.a.
Switzerland	3.50	4.50	4.50	3.81	4.25	4.44	5.25	4.63	4.00	4.00	3.94
United Kingdom	9.31	9.88	11.75	11.06	10.13	9.69	9.63	9.88	9.63	10.37	11.13
Australia	10.40	12.75	18.80	16.13	14.68	14.21	14.00	14.46	16.68	17.82	16.71
Japan	6.40	6.38	7.05	5.32	4.80	4.90	4.65	4.70	4.80	4.95	4.63
New Zealand	11.75	15.25	19.98	20.56	20.16	16.42	15.10	16.47	16.57	15.50	16.60
South Africa	20.13	22.88	13.20	12.60	12.00	11.40	11.00	10.80	9.75	9.50	9.75
Argentina*	14.50	31.23	5.40	4.50	4.34	4.25	4.28	4.48	6.18	6.94	7.65
Brazil	23.00	27.00	18.00	21.00	21.50	26.00	29.00	30.00	42.00	44.00	49.00
Chile	20.57	20.68	23.60	16.30	19.98	13.62	15.94	16.49	13.62	16.49	20.70
Hong Kong	14.88	8.25	6.50	7.25	7.81	6.02	6.75	6.31	5.00	5.25	4.38
Korea	7.60	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Malaysia	7.75	9.58	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Mexico	57.15	47.45	72.90	79.55	80.20	80.00	85.50	87.50	87.50	94.30	n.a.
Philippines	14.96	31.01	12.34	14.17	12.37	14.63	11.56	10.12	n.a.	n.a.	n.a.
Singapore	7.44	6.13	5.26	4.94	4.76	4.94	4.82	4.26	3.88	3.19	2.88
Taiwan	7.00	6.50	5.25	4.75	4.50	4.50	4.50	4.50	4.25	4.50	4.00
Thailand	10.00	13.00	10.50	10.50	8.50	8.50	8.50	7.50	6.75	6.75	6.75
Venezuela	12.00	12.50	8.00	8.00	8.00	8.00	9.00	9.00	9.00	8.00	8.00

*Percent per month.

Domestic government bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	12.00	11.61	9.49	7.50	7.70	8.37	7.79	7.88	7.51	7.95	7.81
Canada	12.02	11.66	10.04	9.54	9.32	9.52	9.42	9.36	9.16	9.44	9.53
Austria	8.02	8.04	7.61	7.63	9.00	7.14	7.19	7.20	7.11	7.06	n.a.
Belgium	11.89	11.56	9.60	8.41	7.46	7.93	7.86	7.47	7.24	7.36	n.a.
Denmark	12.96	14.60	9.67	9.26	8.63	10.17	10.17	10.64	11.24	11.11	11.16
Finland	11.16	10.73	10.58	8.77	8.89	8.27	8.27	8.25	8.15	7.75	7.90
France	13.96	12.70	11.33	9.19	8.53	8.58	8.65	8.55	8.05	8.51	n.a.
Germany	8.38	7.17	6.57	6.21	5.78	6.31	6.17	6.07	5.95	6.26	6.44
Ireland	14.25	14.90	11.84	9.35	8.57	9.17	9.31	10.33	n.a.	12.48	n.a.
Italy	17.69	14.52	13.66	13.35	12.27	10.87	10.83	11.06	10.81	n.a.	n.a.
Netherlands	8.58	7.72	6.96	6.44	6.15	6.39	6.38	6.22	6.03	6.04	6.22
Norway	12.50	12.00	13.10	12.80	12.80	12.80	13.10	13.42	13.40	13.40	13.40
Portugal	22.11	22.23	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	17.25	13.93	12.30	12.22	12.06	11.35	10.98	11.52	11.52	11.10	10.15
Sweden	12.30	12.04	12.11	10.81	9.81	10.06	9.79	9.76	9.63	9.49	n.a.
Switzerland	4.53	4.60	4.42	4.16	4.24	4.39	4.43	4.39	4.26	4.26	4.19
United Kingdom	9.94	10.25	10.35	8.75	8.73	9.11	9.32	9.45	9.31	10.31	10.40
Australia	13.65	13.50	14.85	12.60	12.25	12.65	12.95	14.02	14.10	13.85	13.46
Japan	7.45	6.47	5.92	4.67	4.79	5.57	4.90	4.83	4.57	4.65	4.95
New Zealand	10.50	16.90	17.00	18.90	16.80	15.50	15.40	16.20	15.90	15.35	15.20
South Africa	13.64	16.55	18.09	17.65	17.40	17.09	16.99	16.00	14.03	15.24	15.83
Philippines	14.47	18.54	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.a.	n.a.	n.a.
Venezuela	13.50	14.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

Commercial bank lending rates to prime borrowers

at or near end of month

	1983	1984	1985	1986						
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	11.00	10.75	9.50	9.00	8.50	8.50	8.50	8.00	7.50	7.50	7.50
Canada	11.00	11.25	10.00	12.00	11.25	10.25	10.25	9.75	9.75	9.75	9.75
Austria	9.25	9.25	9.00	9.25	9.25	9.25	9.00	9.00	9.00	9.00	n.a.
Belgium	13.75	14.00	11.50	11.50	10.50	10.50	9.75	9.75	9.75	9.75	9.75
Denmark	10.00	10.50	8.50	7.50	7.50	7.50	7.50	7.50	8.00	8.00	8.00
Finland	10.18	10.68	10.37	9.49	9.49	8.78	8.82	8.76	8.79	8.77	n.a.
France	12.25	12.00	10.60	10.60	10.10	9.60	9.60	9.60	9.60	9.45	9.45
Germany	7.75	7.75	7.25	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75
Ireland	13.75	15.75	12.50	17.50	14.50	13.50	12.25	12.25	12.25	12.25	13.75
Italy	18.75	18.00	15.88	16.00	15.25	14.50	13.50	13.50	13.50	13.00	13.00
Netherlands	7.00	6.25	6.25	6.00	6.00	7.00	6.75	6.50	5.88	5.88	5.88
Norway	13.50	13.00	12.40	13.75	13.75	14.75	15.50	15.25	15.25	15.75	15.88
Portugal	30.00	29.00	22.50	22.50	21.00	21.00	18.00	18.00	18.00	18.00	n.a.
Spain	17.31	15.84	14.75	14.58	14.52	14.50	14.44	14.37	14.36	14.29	14.25
Sweden	13.50	14.50	15.05	13.00	12.75	12.75	12.75	12.75	12.75	11.50	n.a.
Switzerland	6.00	6.00	6.00	6.00	6.00	5.75	5.75	5.75	5.75	5.75	5.75
United Kingdom	9.00	9.50	11.50	11.50	10.50	10.00	10.00	10.00	10.00	10.00	11.00
Australia	12.75	14.00	21.00	19.75	19.00	18.25	18.00	17.25	18.50	19.00	18.75
Japan	5.89	5.70	5.71	5.42	5.18	4.95	4.71	4.57	5.24	5.24	n.a.
New Zealand	11.00	14.00	21.00	21.00	22.00	21.00	18.00	17.00	16.50	17.00	17.00
South Africa	20.00	24.00	16.50	15.50	15.50	14.50	14.50	14.50	14.00	13.50	13.50
Argentina*	15.50	32.05	7.30	5.25	4.80	5.52	5.35	5.57	7.70	8.62	8.70
Brazil	24.00	31.00	19.00	21.00	22.50	26.00	29.00	32.00	44.00	46.00	51.00
Chile	30.90	60.82	33.34	31.76	31.99	30.60	29.38	28.77	26.38	23.51	27.20
Hong Kong	13.50	11.00	7.00	8.00	8.00	7.50	7.50	7.50	6.50	6.50	6.50
Indonesia	19.75	23.50	18.75	20.00	19.50	19.00	19.00	18.75	18.75	18.75	18.25
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Malaysia	11.00	12.00	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50
Mexico	56.44	47.54	65.66	71.79	73.48	75.02	76.97	81.36	84.40	87.72	n.a.
Philippines	18.00	44.00	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.a.	n.a.	n.a.
Singapore	8.98	9.40	7.20	7.18	7.15	7.15	7.15	7.05	6.83	6.45	6.28
Taiwan	10.25	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Thailand	16.00	16.50	15.50	14.00	14.00	14.00	14.00	12.75	12.00	12.00	12.00
Venezuela	16.00	16.00	13.00	13.00	13.00	13.00	14.00	14.00	14.00	13.00	13.00

*Percent per month.

Domestic corporate bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	12.63	12.25	10.15	8.63	9.00	9.20	9.00	9.25	8.63	9.00	9.00
Canada	12.89	12.42	10.74	12.46	12.24	10.35	10.10	10.19	10.00	10.32	10.39
France	14.35	12.94	11.76	10.13	9.82	9.44	9.85	9.12	8.37	8.92	n.a.
Germany	8.30	7.20	6.90	6.70	6.60	6.40	6.50	6.60	6.40	6.30	6.40
Netherlands	8.51	7.51	n.t.	6.53	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Norway	13.25	12.75	14.00	14.00	14.00	14.00	14.25	14.90	15.00	15.50	15.50
Spain	20.07	18.32	14.92	14.40	13.91	13.99	13.71	13.22	13.68	13.38	13.24
Sweden	12.21	12.33	13.25	11.99	10.93	11.20	11.04	10.88	10.99	10.82	n.a.
Switzerland	4.92	5.09	4.93	4.64	4.98	4.77	4.83	4.84	4.77	4.77	4.73
United Kingdom	11.57	11.64	11.47	9.96	9.80	10.05	10.32	10.49	10.32	10.31	10.40
Japan	7.09	6.21	6.90	5.40	5.14	5.20	5.14	4.74	5.14	n.a.	n.a.
Korea	14.20	15.00	13.60	12.40	12.40	12.80	12.80	12.90	12.80	12.80	12.80
Venezuela	18.00	18.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00

World Financial Markets

Published by
Morgan Guaranty Trust Company of New York
International Economics Department
23 Wall Street, New York, NY 10015

Member, Federal Deposit Insurance Corporation Printed in U.S.A.

1/2/87 B6200-2

World Financial Markets

Morgan Guaranty Trust Company of New York

December 1986

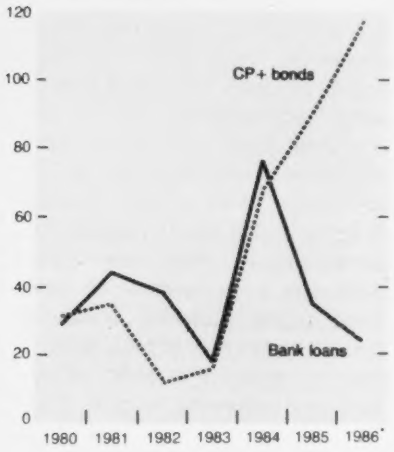
Global financial change, 1
- Forces for innovation, 2
- Pressures to deregulate, 4
- Rewards, but with risks too, 7
- Uncertainties for monetary policy, 9
- A stable framework, 10

Statistical appendix, 13

Chart 1

U.S. corporate borrowing

net borrowing of U.S. nonfinancial corporations billions of dollars



*First half seasonally adjusted annual rates

Global financial change*

Financial markets are undergoing sweeping change worldwide. Ever since the Euromarkets emerged thirty years ago, there has been erosion of the barriers that used to segment currencies and countries, or otherwise differentiate financial and nonfinancial institutions by product, function, and geographic market. The pace has heated up in the 1980s. Internationalization has made possible, even mandatory, the global management of portfolios. A veritable alphabet soup of novel financial products crowds the marketplace. And, although there remains room for skillful niche players, customary specializations are on their way out for many of the largest institutions. Accordingly, the financial services industry generally is moving toward a less specialized structure. Indeed, competition among banks, securities houses, other domestic institutions, and foreign firms reaches new highs by the day.

Thanks to the cost savings and liquidity benefits of *securitization*, U.S. firms have drastically cut their reliance on direct bank financing: net commercial paper and bond issuance by private nonfinancial corporations eclipsed their borrowing from banks by a margin of 4 to 1 in the first half of this year, whereas bank loans had run ahead as recently as 1984 (see Chart 1). U.S. financial and nonfinancial firms are busily securitizing mortgages, automobile loans, and consumer credit receivables — assets that previously were illiquid and difficult to trade. In international markets, securitized lending now accounts for over 80% of gross new credit arranged (see Table 1), compared with about 50% in the mid-1970s. Syndicated bank lending has declined both in dollar total and as a share of total international lending. Global integration of finance, the phenomenon dubbed *internationalization*, is a force for revolutionary change in market structure, exemplified by the great increase in the presence of banks and other financial institutions outside their home markets (see Table 2).

Product innovation has bred a plethora of new — and sometimes not so new — financial instruments sporting nifty acronyms. Some of these new instruments allow the "unbundling," or separation, of risks

---

*Adapted from "Global Capital Markets: Issues and Implications," a paper by Rimmer de Vries, assisted by Gerard Caprio, Jr., officers of Morgan Guaranty Trust Company, presented to the Wallenberg Forum's conference on "Financial Fragility and Global Growth," sponsored by the International Law Institute and the Georgetown University School of Foreign Service, October 1986.

Table 1

*Gross international borrowing**

billions of dollars at annual rates

	1983	1984	1985	1986 Jan-Sep
Securitized financing	87	151	215	258
Bond issues	77	112	168	232
NIFs and similar backups	10	29	47	26
Syndicated bank loans	67	57	42	40
Other backups	3	11	11	7
Total borrowing	157	219	268	305
Memo:				
Securitized financing as % of total	55	65	80	84
Bond issues, net of estimated retirements	59	90	131	170

*Data exclude merger-related standbys and renegotiations.
Source: OECD.

Table 2

*Foreign banking presence by host country**

data are for year-end, except for 1985

	1970	1980	1985 second half
*United States***	50	579	783
United Kingdom	95	214	336
*Germany***	77	213	287
*France***	58	122	147
Switzerland	97	99	119
*Japan***	38	85	112
*Luxembourg***	23	96	106
Belgium	26	51	58
Canada	0	0	58
Netherlands	23	39	44
Italy	4	26	40

*The data are not fully comparable. Except for countries denoted**, the data count foreign banking institutions or families operating through branches or majority-owned subsidiaries (branches only for Italy).

**Data count banking offices (branches only for Japan), so that foreign organizations represented by more than one entity are double-counted. At end-June 1985, total represented foreign organizations numbered 350 in the United States, 95 in Germany, and 76 in Japan.
Source: BIS.

facing borrowers and investors and thereby facilitate the hedging of price, interest rate, and exchange rate risk. Continued innovation is inevitable, spurred on not only by the competition among rival firms but also by their efforts to exploit *technological change* in communications and data processing. Innovation likely will enjoy additional impetus from — and itself inspire — further financial *deregulation*.

Financial change brings rewards, but also risks. The rewards include more efficient allocation of capital, a wider menu of financial products for borrowers and investors — large and small — and enhanced hedging capabilities. If economies of scale exist — as many players now are betting — these benefits will be all the greater. However, certain risks may be heightened. Efficient markets transmit shocks quickly and may exacerbate interest and exchange rate volatility. Settlement systems are being tested by the mushrooming volume and complexity of financial transactions. And monetary policy is complicated by ever-easier shifts among financial assets. These potential negatives place a high premium on risk awareness and evaluation, profoundly challenging managers of financial institutions, not to mention their regulators. More dimly recognized is the associated challenge to governments as macroeconomic managers: in the past, financial crises have often — indeed, some would say, have always — originated from shocks compounded by macroeconomic policy mistakes. If governments are to contain the risks of the new financial freedom, and add its benefits to those traditionally recognized in free trade, they must observe discipline and coordination to limit the international imbalances that may arise in the pursuit of stable, noninflationary economic growth.

Forces for innovation

Just a few years ago financial innovation seemed of either actual or prospective importance principally in North America and the London-based Euromarkets. Although Germany and Switzerland regulated neither interest rates nor cross-border capital flows, their low inflation, universal banking, and concentrated domestic markets appeared to leave little room for financial change. In Japan, France, and Italy, credit and international capital controls were thought to stifle change. As things turned out, however, financial pressures were building in the latter group. And internationalization was — and is — stepping up competition in all major financial markets. Innovation is furthest advanced where competition is most intense, notably in the Euro, U.S., and U.K. markets. In concentrated markets where competition is less, innovation tends to lag.

Competitive pressures for financial innovation and institutional change owe much to the erosion of banks' traditional markets and franchise. The 1980s have brought the LDC debt crisis and a general deflation taking particular toll of shipping, real estate, farm, energy, and other commodity sectors. Many banks have seen their credit ratings slip and funding costs rise in consequence. They also face intermediation costs associated with reserve requirements, capital, and overhead. Many large corporations and governments therefore are able to borrow directly from investors at lower cost than from banks. This securitization leaves the typical bank with a loan portfolio of either lower quality or earning a reduced spread. Banks further have suffered from the ability of a variety of nonbank institutions to lend in many countries (with the notable exception of Germany) on the basis of deposits or borrowings free of reserve requirements and insurance fees.

Banks therefore have sought out other areas for profitable expansion. Often these feature new products, such as fee-based services and off-balance-sheet activities. For example, securitization reduces demand for traditional bank loans but creates demand for other bank services. Because borrowers and lenders in securitized markets face rollover risks, they display at least a potential demand for backup facilities. This demand is met by such devices as note issuance facilities (NIFs), involving medium-term bank commitments to purchase short-term paper that otherwise fails to sell within specified terms. Their use rose rapidly until mid-1985. Subsequently, another innovation has taken off — Eurocommercial paper (Euro CP). Although bank-line backups and ratings are routine for selling paper in U.S. markets, Euro CP normally is offered without direct backups or ratings.

U.S. and Japanese banks — excluded from much of the securities business at home — have particularly stressed international expansion. Internationalization has been further driven by such innovative products as interest and currency swaps (see Table 3). Historically, differences in taxes, regulations, information, or preferences have allowed major discrepancies among interest rates on assets of comparable risk. Today, by contrast, relatively small swap gains, although important to the parties involved, suggest a high degree of international integration of capital markets.

Competition among financial institutions sets great store by *technological advance.* In the last 25 years, data processing and communications costs have declined dramatically — on the order of 25% and 15% per year, respectively, and with no end in sight — in turn, slashing transactions costs and spurring trading activity. Low-cost, instantaneous communications are vital in bringing together financial market participants worldwide and now make possible 24-hour trading. Moreover, many of the new financial products could not have taken off without technological breakthroughs nor could managers hope to monitor their complex exposures adequately. That is certainly the case with financial futures and options contracts, whose trading volume has mushroomed in the 1980s (see Chart 2) and whose availability allows low-cost hedging of exposure to various economic risks. Today's optimal hedging strategies require complex processing of data from a variety of markets at home and abroad. Speed is of the essence, since trading opportunities often are short-lived.

Besides competition and technology, several macroeconomic forces have inspired financial innovation. The list begins with the growth of government deficits following the first oil shock (see Table 4). U.S. financial institutions have devised new ways to market government securities, for example in the form of zero-coupon instruments, and also use the well developed government debt market as the basis for futures and options contracts. Elsewhere, the deficits have compelled broadening of debt markets, putting governments in competition with banks and thrifts. The resulting innovations include the offering of debt at shorter term (as in Italy and Japan), with variable rates and in small denominations (Italy), in indexed form (United Kingdom and Italy), or by direct auction to a broad audience (France and Japan).

High and volatile *interest* and *inflation rates* during the 1970s and early 1980s in most of the industrial world (see Tables 5 and 6) have in-

Table 3

*Interest rate swaps**

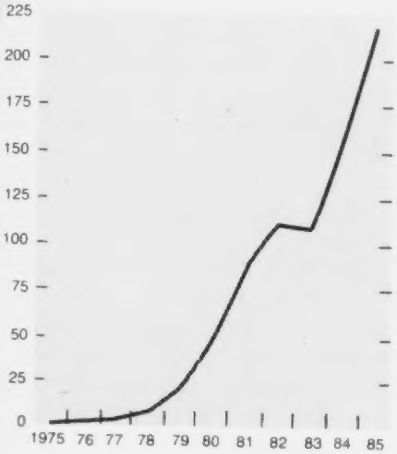
	Total outstanding end of quarter, $ billions	*Number of contracts concluded during quarter*
1985Q2	109.9	—
Q3	134.7	1055
Q4	170.2	1621
1986Q1	—	1744
Q2	—	2209

*Based on surveys by the International Swap Dealers Association. Interest rate (and currency) swaps exploit comparative advantage in borrowing in different markets, together with different preferences or needs for liability management. These swaps allow borrowers and investors to tap domestic or foreign markets and then alter the interest-setting mechanism (and currency denomination) of their liabilities and assets to suit.

Chart 2

*Interest rate futures**

number of contracts, daily average in thousands



* Contracts for Eurodollars, certificates of deposit, Treasury bills, notes, and bonds, plus Government National Mortgage Association Securities.

Futures and options contracts are now available for a variety of commodities, currencies, and financial instruments in several major industrial countries. Such contracts set terms for the future exchange of an underlying asset at a predetermined price. Whereas futures obligate both buyer and seller to perform, options commit only one of the parties to perform, with the other left to his choice. Together with swaps, interest-rate and currency futures and options can limit interest and exchange rate risk. Futures and options contracts also can be used to speculate on the price of the underlying asset.

Table 4

General government budget balances

percent of GNP

	1970	*1975*	*1983*	*1986e*
United States	—1.1	—4.2	—3.8	—3.4
Canada	0.9	—2.4	—6.2	—5.4
Japan	1.8	—2.7	—3.7	—1.5
Germany	0.2	—5.7	—2.5	—1.0
France	0.9	—2.2	—3.1	—2.9
United Kingdom	2.4	—4.7	—3.7	—2.8
Italy	—5.0	—11.7	—11.7	—12.7
Major 7 industrial countries	—0.2	—4.2	—4.1	—3.4

Source: OECD.

Table 5

Interest rate volatility

computed from monthly data on 3-month Eurodeposit rates, in percent per annum

	1973 Nov -1979 Sep	*1979 Oct -1982 Aug*	*1982 Sep -1986 Oct*
United States			
Range	5-14	10-20	6-12
Average	8	15	9
Japan			
Range	5-14*	6-16	5-8
Average	8*	9	6
Germany			
Range	3-12	8-14	4-8
Average	5	10	5

*3-month gensaki.

Table 6

Inflation volatility

computed from monthly data on 12-month percent changes in consumer prices

	1973 Nov -1979 Sep	*1979 Oct -1982 Aug*	*1982 Sep -1986 Oct*
United States			
Range	5-12	6-15	2-5
Average	8	11	3
Japan			
Range	2-26	2-9	0-4
Average	10	5	2
Germany			
Range	2-8	5-7	—1-+5
Average	5	6	2

tensified the use of novel tools for cash and interest rate risk management. *Exchange rate volatility* has stimulated demand for instruments to manage currency exposure. Although exchange rates had been by no means static under the Bretton Woods system, their short-term volatility rose in the 1970s and remains high today (see Chart 3). Explanations include swings in oil and commodity prices, current account imbalances (see Table 7), and differing policy responses by governments. Macroeconomic policies have been especially divergent in the 1980s, given the development of a large U.S. budget deficit matched by tighter fiscal policies in Japan and Europe.

Finally, among the forces for innovation, financial markets have had to cope with shifting *global portfolio preferences*. The second oil shock shifted wealth from the oil-consuming countries to the oil producers and then, in the wake of economic adjustment, back to Europe, Japan, and a few small Asian nations. OPEC portfolio holders were more attracted into short-term bank deposits, but today's Japanese investors prefer treasury bonds. These differing portfolio preferences among investors, and corresponding differences among debtors, have fostered such innovations as swaps and options, not to mention securitization.

Pressures to deregulate

Financial innovation and regulation make uneasy partners: each must adapt to the other. In the process, regulatory goals and procedures are being reexamined and the goalposts resited. Table 8 highlights some of the principal features of the present regulatory approach in the major countries.

Regulation finds its classical rationale in the need to protect the safety and soundness of the banking system from excessive risk-taking and mismanagement generally. Governments recognize the need to step in and defend solvent financial institutions but demand the right to supervise and regulate them as a quid pro quo for lender of last resort facilities or deposit insurance. Regulations also are employed as techniques of monetary policy, for example by interest rate, general credit, and cross-border controls, reserve requirements, and the prohibition of certain instruments. In addition, asset-holding (or reserve) requirements and differential credit limits may be used to help finance government deficits or other preferred activities. When binding, regulations typically prevent or make more expensive the extension of nonfavored loans, reduce bank competition, and lower deposit interest rates. Finally, governments regulate banks to prevent abuses and undue concentration, as well as to protect national ownership and control of financial institutions.

However, in recent years governments and regulators have come to acknowledge the declining efficiency, even the perverse consequences, of many regulations. Regulators further are changing their views about what is required for banking-system safety and soundness. For example, to facilitate the takeover of problem banks with large farm and energy exposures, the Federal Reserve has recommended temporary and selective relaxation of the ban on interstate banking. And 18 U.S. states have enacted statutes allowing current or future entry from any reciprocating state, while others have set up regional compacts.

Regulators have allowed new products in most major financial markets. This largely has been in response to pressure from domestic constituencies, but the Japan-U.S.

Chart 3

Exchange rate volatility

average absolute month-to-month changes, based on month-end rates in percent

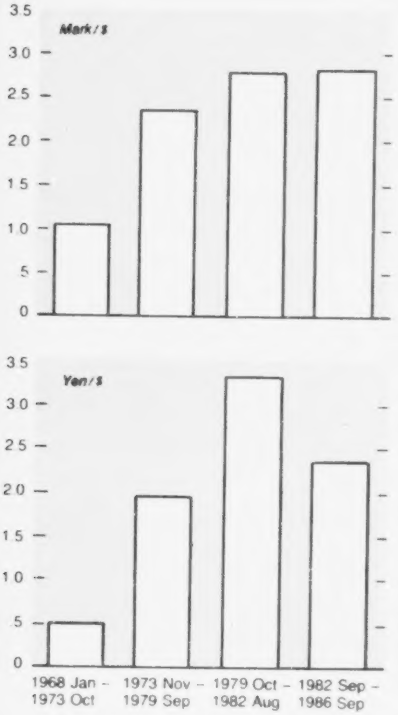


Table 7

Current account balances

billions of dollars, annual averages

	1976-1978	1979-1981	1982-1985	1986-1987
Industrial countries	—11	—39	—47	—30
United States	—9	8	—67	—140
Japan	10	—5	28	71
Germany	6	—9	7	29
OPEC	19	68	—9	—28
Non-OPEC developing countries	—25	—65	—38	—26
Eastern Europe and other	—9	—1	8	—1
*World**	—26	—37	—86	—85

*Equals statistical discrepancy.

yen-dollar talks have usefully supplemented the internal pressures within Japan for financial modernization. Their most tangible results are the liberalization and major growth of the Euroyen markets. Other reforms are gradually coming to pass, including this month's opening of a somewhat restricted offshore banking market. Progress also is reported toward easing the rules applied to domestic bond issues by Japanese entities, many of whom have found foreign channels preferable. Japan's forward steps are welcome. But much remains to be done, particularly to develop active short-term markets in commercial paper and treasury bills and to abolish the interest rate controls and fiscal preferences that distort household savings choices.

In Europe, reflecting belated recognition of the potential economic gains, political pressure is becoming a significant force for further financial deregulation: EC governments recently proclaimed their intention to end all restrictions on capital flows and create an open market in financial services by 1992. In a breathtaking overthrow of its former tradition, France now is endeavoring to catch up to the forefront of European financial innovation. Commercial paper, certificate of deposit, and interest rate futures markets all were recently authorized in France and since have grown rapidly. By contrast, the German and Swiss authorities have proceeded at a distinctly measured pace.

In the 1960s Germany offered a rare example by exercising neither interest rate nor credit controls. Elsewhere, interest rates on demand deposits, and often on time deposits too, generally were regulated. However, in many countries interest rate controls have since come to be viewed as unfair to small depositors and credit controls as penalizing private investment. Competitive forces also militate against continued controls. Today, U.S. banks still are prohibited from paying interest on ordinary demand deposits, but negotiable-order-of-withdrawal (NOW) and super-NOW accounts are available to individuals, and there are no controls on time deposits or credit. Interest rate controls now persist mainly in Japan and France. Both are moving to lift them over the next few years. Credit controls likewise are on the wane as monetary policies increasingly rely on open-market operations.

International pressures have been prominent in the drive to deregulate. Controls on cross-border capital movements have been relaxed or in many instances eliminated. Withholding taxes on interest paid to nonresidents have been lifted, inspired by the 1984 U.S. action on government and corporate bonds. The formal or informal restrictions that still exist in several countries, notably France and Italy, gradually are fading. The easing of restraints on holding foreign assets and lending to foreign borrowers naturally has played an important role in the international diversification of portfolios.

Several governments are actively promoting their home markets as international financial centers. Some have liberalized to keep financial business at home, since financial institutions and their clients show ability and readiness to move to less regulated foreign markets. Governments also are pressing the claims of their own financial institutions for "reciprocity" or "national treatment" in foreign markets.* All these motivations featured in London's recent

---

*Reciprocity requires that one country's financial institutions be allowed to operate in the domestic markets of another with privileges equal to those it affords to the second country's institutions in its own markets. National treatment extends to foreign institutions the same privileges and restrictions applied to domestic firms. These two standards can easily conflict in a world of different institutional and regulatory structures.

Table 8

Highlights of financial regulation in major industrial countries

			Market structure		
	Interest rate controls	*Credit controls*	*Domestic*	*International**	*Product structure***
United States	None on over-30-day maturities; otherwise abolished for individuals in 1983	None	Separation of commercial banks, savings banks, and securities firms; and restraints on interstate banking	No controls since 1974; easy foreign entry	Wide range of well-developed markets in CP, CDs, futures, options, FRNs, etc., with few restrictions
Japan	Being phased out on large time deposits (over $2 million), MMC minimum reduced to about $200,000 as of September 1986	Ad hoc "window" guidance	Separation of banking, securities, trust, and insurance; also of short- and long-term lending	Controls eased in 1980-84; continuing portfolio requirements and difficult foreign entry	CDs (introduced in 1979), BAs (1985), futures (1985), deep-discount bonds; no options; size and maturity limits on corporate issues
Germany	Abolished in 1967	None	Universal banks separate from regional savings banks, real estate banks, and building and loan associations	Controls substantially eased in 1960s and abolished in 1980/81; eased foreign entry in 1985	Zeros and FRNs (May 1985), CDs (1986); swaps allowed but discouraged; no CP, futures, options, or MMMFs
France	On demand, time, and savings deposits	To be abolished at end-1986	Universal banks separate from merchant banks, long-term credit institutions, finance, and specialized credit institutions	Eased in 1986, but still some controls on residents' lending for financial transactions; foreign entry easy in principle	CDs, CP with some restrictions on maturities and amounts (1985), futures (1985); no options
United Kingdom	Abolished in 1971	None since 1982	Eroding divisions among commercial banks, merchant banks, and building societies	No controls since 1979; relatively easy foreign entry	Similar to United States, with CP market new and relatively undeveloped
Italy	None	With varying degrees of formality	Separation of specialized banks, and short- and long-term credit institutions	Easing in 1986, but still controls on outflows; easy foreign entry	No futures or CP, undeveloped options and CD markets; zeros possible
Canada	Abolished in 1967	None	Separation of chartered banks and securities dealers, under review	No capital controls; limitations on foreign entry and ownership of financial institutions	Wide range of well-developed markets with few restrictions
Switzerland	None	None	Universal banks separate from cantonal and local savings banks	Controls abolished in 1979/80; no SF Eurobond market; foreign entry with reciprocity	Undeveloped money and short-term bill markets; no options, CP, or CDs

*It should be noted that even countries that have abolished cross-border controls generally regulate insurance and pension portfolios.

**The acronyms are: commercial paper (CP), certificates of deposit (CDs), floating rate notes (FRNs), bankers' acceptances (BAs), zero-coupon bonds (zeros), and money market mutual funds (MMMFs).

"Big Bang," which has eliminated fixed commissions from U.K. equity markets and many traditional barriers among institutional functions. Following a rash of newly permitted mergers, many U.K. securities firms now are owned by commercial banks or foreign institutions. A number of countries allow relatively easy foreign entry into domestic markets by branching or establishing a subsidiary, but formal or informal restrictions may make expansion and profitable operation difficult. Moreover, even the now-liberal British share the near-universal reluctance to accept foreign takeovers of major domestic banking institutions.

U.S. banks and securities firms continue to be separated by the Glass-Steagall Act. True, there has been some slight erosion in U.S. restrictions. And several U.S. banks have applications pending for permission to underwrite commercial paper, the full range of municipal revenue bonds, and asset-backed securities. However, even if these applications are approved, U.S. banks still would be prohibited from underwriting corporate securities in domestic markets. Anomalously, thanks to a "grandfather" clause, some foreign banks that entered the United States before 1978 can engage in a wider variety of activities — including securities business — than U.S. banks. In Japan, the authorities recently allowed nine foreign banks into trust banking and several into the securities business through subsidiaries with 50% foreign bank ownership. Remarkably, Japan's city and long-term credit banks cannot enter either area. The Japanese government, banks, and securities companies see that traditional demarcation lines are not viable forever, but they seem to be waiting for U.S. abandonment of Glass-Steagall before significant amendment of their analogous Article 65.

Rewards, but with risks too

Global financial change has both positive and negative aspects. Competition and technology are reducing transactions costs to the clear-cut benefit of investors and borrowers. Small depositors increasingly earn market interest rates with access to a wide and inexpensive array of financial services. Internationalization allows investors to diversify portfolios and borrowers to tap markets in ways unthinkable ten years ago.

Separation of the various risks associated with financial assets enables more competitive pricing and trading. The broadening of futures and options markets has lowered the cost of hedging inflation, interest, and exchange rate risks.[*] When their capital is less at risk, investors are likely to invest in greater volume. Efficient markets also tend to equalize returns on investments of comparable risk and further allocate capital to high-return uses, thereby raising world output potential.

Contrary to the negative presumptions commonly expressed, stability of the global financial system may actually benefit from many of the changes now in progress. Careful studies of the commodities markets have found that futures trading either has no effect on the volatility of cash prices or actually helps stabilize them. Financial futures and options trading should not be presumed to act otherwise. Moreover, the same technology that underpins new, complex financial products facilitates monitoring of the exposures involved, and of other

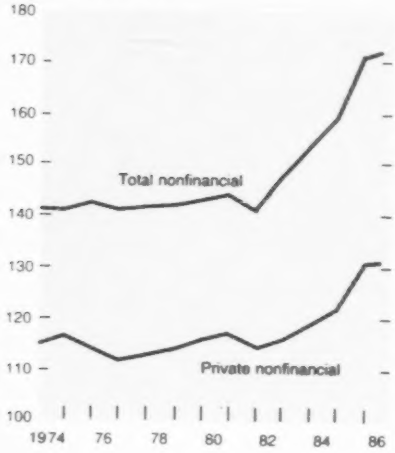
---

[*] It is sometimes argued that hedging delays proper adjustment to price changes. However, the conclusion does not hold for a profit-maximizing firm. For example, if hedged against a rise in the yen, a Japanese exporter should set his dollar prices as if unhedged; hedging yields a lump-sum gain if the yen rises in exchange for an initial fixed payment, but alters none of the variables underlying profit-maximizing decisions.

Chart 4

The U.S. debt – GNP ratio

year-end data, except 1986 second quarter percent of GNP



exposures as well. Eventually, transactions of many kinds will be recorded immediately, allowing exposures to be revalued, or "marked to market," instantly. Exposures further can be quickly recalculated under various scenarios, helping managers to appreciate potential gains and losses. Finally, the unbundling and trading of risks enables their redistribution from risk-averse market participants to more willing and arguably more able holders.

One concern with financial change stems from its potential to encourage excessive borrowing. Particular anxiety focuses on the rising U.S. debt/GNP ratio (see Chart 4). How far this rise derives from financial change, rather than demographic, income, or attitudinal factors, is hard to tell, still less whether it undermines financial stability: both corporate and household debt maturities have lengthened recently and household assets have risen even more sharply than debts. Nonetheless, assets and debts may not be well matched, leaving open the possibility that unexpected events could impair debt servicing.

On some other counts, innovation and deregulation, if poorly handled, may indeed risk the stability of the financial system. Thus, by reducing the profitability and quality of the bank-loan market, securitization adds to the contractionary forces on the traditional banking sector and complicates its orderly rationalization, for example, by merger or acquisition. Moreover, regulators, and even some market participants, are concerned that the prevailing pricing of some new financial instruments inadequately compensates banks and other participants for the risks they assume. To this point, however, difficulties have not occurred on such a scale as would put such claims of underpricing to definitive test. This month's drying-up of the perpetual floating-rate note market drives home the underappreciated point that holders of securitized assets cannot depend on ready salability of their securities on advantageous terms.

A clearer concern is that quicker communication, in conjunction with more efficient and complex markets, may transmit shocks more rapidly and widely than ever before. Even in the 1920s, and by some accounts still earlier, runs on banks, currencies, and stock markets proved internationally contagious. Today, foreign disturbances are far more likely to spill into domestic markets before authorities can react. Moreover, the long chains of both bank and nonbank counterparties involved in many financial transactions can be less than transparent and could make it difficult to limit the spread of defaults. These chains, in conjunction with ballooning transactions volume, carry potential for breakdown of the settlements system: large daylight overdrafts build up, yet participants cannot be monitored comprehensively and continuously by their fellows or the regulators.

To cope with risks and gain the necessary flexibility to expand in profitable markets, some banks and other financial institutions have moved of their own accord to build up their capital resources. Bank supervisors are encouraging such action on general grounds and, in some cases, by applying or proposing risk-based capital adequacy requirements; these endeavor to categorize on- and off-balance-sheet activities by degree of risk. However, much remains to be done to design appropriate requirements and impose them uniformly among both countries and financial institutions. Otherwise, "regulatory arbitrage" would lead to the supply of riskier products from jurisdictions where

Table 9

*Money supply: targets and outcomes**

growth rates in percent

		1983	1985	1986**
United States				
M1	*target*	4-8	4-7	3-8
	outcome	10	11.9	14.2
M2	*target*	7-10	6-9	6-9
	outcome	8.3	8.6	9.1
M3	*target*	6.5-9.5	6-9.5	6-9
	outcome	9.7	7.4	8.9
*Japan****				
M2+CDs	*outcome*	7.4	8.4	8.3
Germany				
CBM	*target*	4-7	3-5	3.5-5.5
	outcome	7.0	4.5	7.7
France				
M2,M2R	*target*	9	4-6	
	outcome	10.2	6.9	
M3R	*target*			3-5
	outcome			4.6
United Kingdom				
MO	*target*		3-7	2-6
	outcome		3.3	4.9
£M3	*target*	7-11	5-9	11-15
	outcome	9.5	16.5	18.4
M1	*target*	7-11		
	outcome	14.0		
PSL2	*target*	7-11		
	outcome	12.6		
Switzerland				
CBM	*target*	3.0	3.0	2.0
	outcome	3.6	2.2	1.9

*Blanks indicate that published targets were not set for the aggregate in question. Canada discontinued formal targeting in 1982. Italy has never undertaken formal targeting.

**Actual outcomes are the annual-rate percent changes from target base through October (except France, September). Target bases vary among countries and occasionally over time.

***Japan does not announce targets in advance; instead, roughly three weeks into each quarter, it announces a projection of money supply growth over the year ending in that same quarter.

the capital requirements are lightest and by institutions that escape the regulators' purview.

Uncertainties for monetary policy

Whether or not they endanger system stability, there can be little question that the changes in financial markets complicate monetary policy. Innovation and deregulation facilitate substitution among domestic assets. Internationalization increases substitution among assets in different currencies. Both kinds of substitution alter the mechanism by which monetary policy affects the overall economy. A monetary tightening designed to slow economic activity tends to put upward pressure on exchange rates and reduce net exports. The costs are spread over a broad range of sectors, not merely the interest-sensitive, such as housing and inventory investment. Of itself, deregulation of interest rates may increase their required degree of variability to accomplish monetary policy purposes. However, easier domestic and international substitution should dampen interest rate movements, although at the expense of wider exchange rate swings.

Financial changes create thorny problems for the definition of money. They also render the demand for any monetary aggregate unpredictable, hindering policy judgment and contributing to the poor record of most countries in rationalizing and attaining target rates for money growth (see Table 9). In this decade of widespread obeisance to targeting, it is striking that the percentage of occasions on which targets have been missed has risen, compared with the 1970s' experience, and the extent of over- or undershooting has increased as well.

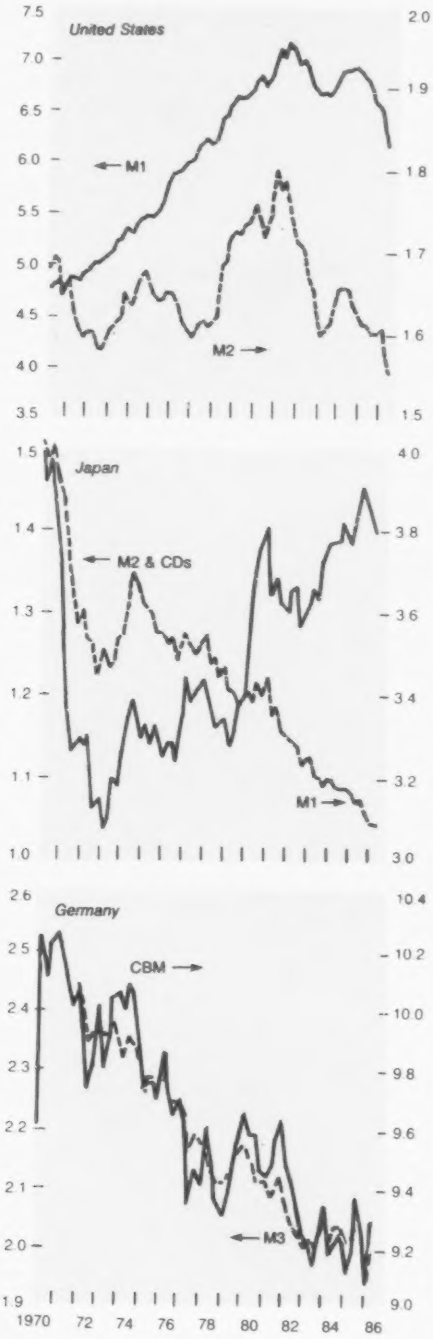
The pitfalls of monetary aggregate targeting are aptly depicted by the behavior of velocity — the frequency with which an average unit of money is spent, measured in practice by the ratio of nominal GNP to the money stock. Velocities vary widely among industrial economies and, within most, those of narrow and broad monies often diverge (see Chart 5). If velocity should fall, the money stock must rise commensurately to support a given level of nominal expenditure. In recent years, velocity has indeed come down in a number of industrial countries, reflecting declines in interest rates and inflation. This was to be expected, given the dwindling incentives either to economize on money balances or to favor nonfinancial assets over financial. In principle — if not with confidence in practice — these expected trends in velocity can be accommodated by adjusting monetary targets in light of experience.

Unexpected velocity trends are more devastating for targeting. Backed by a multitude of studies, U.S., U.K., and Canadian officials cite innovation and deregulation as significant and imperfectly quantifiable factors in velocity swings. They feel driven to an eclectic view that spans a wide array of data on economic activity, inflation, and exchange rates in making their policy decisions. Japanese officials, never rigid targeters, have demonstrated their own brand of eclecticism by cutting the discount rate three times this year despite concerns about money growth. But German officials continue to attach much importance to monetary targets in the face of the evidence of recent instability of the velocity of their favorite aggregate, Central Bank Money (CBM). If they attempt next year to rein in innovation-driven money growth, they may well depress economic activity already at risk from currency appreciation.

Chart 5

Money supply velocities

ratio of GNP to monetary aggregates



A stable framework

Financial innovation and internationalization seem certain to continue. Worldwide competition among financial institutions still is on the rise, providing strong incentive to innovate. Technology gains also will continue to lower transactions costs, sustaining the attractions of efficient cash management. Even if interest and inflation rates remain generally subdued, record external imbalances and the reduced costs of hedging imply continued strong demand for risk-management products. Besides, international portfolio diversification still is at an early stage for U.S. and Japanese investors and is sure to stimulate the demand for novel financial products.

Financial deregulation also will continue. Ongoing innovation will test existing regulations and increase competition among both domestic and foreign institutions. That should assuage past concerns of some observers about undue concentration in banking. Indeed, regulators may come to see that some of the risks posed by changing financial markets can be lessened by speedier deregulation. Recent concerns about widespread corporate takeover activity in the United States, accompanied by "junk" bond issuance and arbitrage trading, may be used to justify a slowing or outright reversal of financial deregulation. Such a response would be unfortunate, as regulation, particularly the Glass-Steagall Act, has been costly and is of questionable relevance to takeover activities. Instead, increased competition in the securities business, coupled with equal supervision of all participants, should help lessen fears of possible insider abuses.

U.S. restrictions on commercial banks' activities increasingly are recognized as hindering their competitive viability to the benefit only of other financial institutions or other countries' markets. Markets with fewer regulatory constraints will expand relative to those elsewhere. In addition, financial institutions will continue to press for a freer hand in world markets, where the price of admission — reciprocal or national treatment of foreign competitors at home — will necessitate less regulation, not more. Finally, international portfolio diversification will add to the constituencies opposed to regulatory regress.

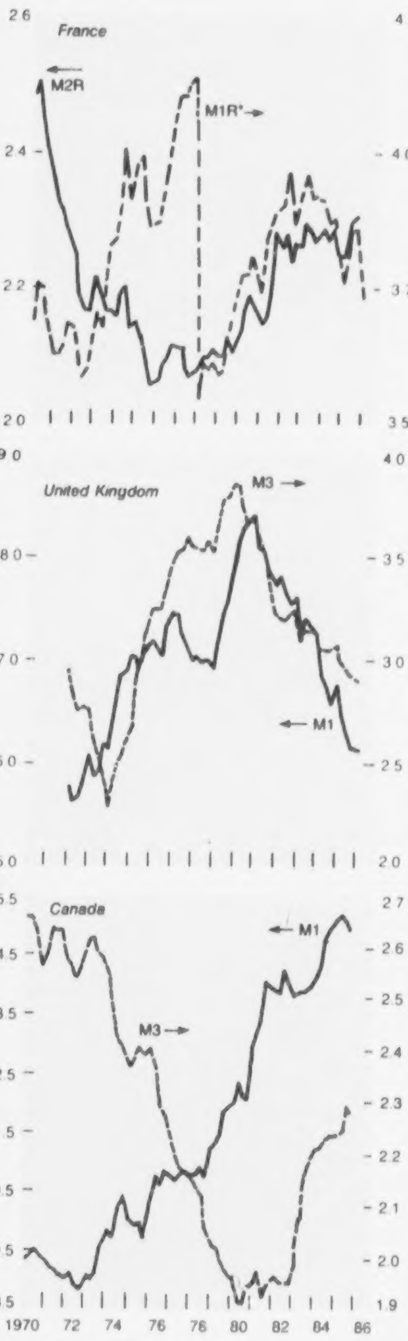
Altogether, global financial change is practically unstoppable. Fortunately, there are very real benefits to be gained for world economic growth through free and innovative capital markets. But it is no easy task for bank managements, regulators, and macroeconomic policymakers to deliver the benefits without the attendant risks.

Bank managers' most urgent and important task is to understand fully the risks in their areas of business and put in place appropriate internal controls. As many realize, it is important not only to control individual risks but also to take account of correlations among them. Better understanding will help in pricing financial products and in judging the adequacy of capital. Banks of course can employ some of the new financial techniques to hedge their exposures and the new technology to help monitor their portfolios. It also is much in their interest to work with regulators and nonbank users of payments systems to reduce settlements risks.

Although regulators' main current concern is rightly that banks in general should strengthen their capital base, attention also should continue to focus on the evaluation of management skill and the level and quality of earnings. Moreover, contrary to some regulators' predilection for maintaining or tightening existing shackles, the removal of

Money supply velocities

ratio of GNP to monetary aggregates



*New series as of January 1978

limits on banks' efforts to diversify assets and revenues — both geographically and in different sectors of the financial industry — could lower the volatility of bank earnings. The securitization revolution amplifies the urgency of allowing banks to follow their best customers into the securities markets. Dismantling the present anticompetitive protection enjoyed by U.S. and Japanese securities houses would benefit investors and borrowers, while also allowing banks a fair crack at the potential profits from the underwriting and trading of corporate securities; in turn, such profits would help build up bank capital. Further, easier entry into various national and international markets would aid bank diversification and extend the benefits of innovation to a wider group.

Governments also can lessen systemic risks by rationalizing and coordinating the often-fragmented efforts of their regulatory agencies. Nonbank financial institutions should be required to engage in prudent behavior no less than banks, especially since these nonbanks are large users of payments systems and compete with banks in many markets. Moreover, as long as they escape equivalent capital requirements, whether for traditional or novel financial products, nonbanks enjoy an advantage over banks that does nothing to improve financial stability. Indeed, to the extent that uneven supervision encourages a shift of financial activity to a relatively lightly regulated branch of the financial sector, financial stability may be undermined. Similarly, regulation must be coordinated among countries, inasmuch as financial institutions and their clients are no slouches in discerning opportunities for "regulatory arbitrage." Central banks generally recognize the benefits of international coordination but are proceeding slowly, in part because of different legal and financial systems. They will have to move faster as deregulation goes ahead.

Besides leveling the playing field, across both institutions and markets, governments should be seeking to stabilize the turf. Fragmented capital markets and limited financing alternatives used to prevent large and long-lasting trade and current account imbalances among nations. Today, the coexistence of free international trade and capital movement demands that policymakers understand and accept their joint responsibility to limit international imbalances and sustain satisfactory economic growth.

The international monetary system displays a persistent asymmetry, assigning deficit countries the main burden of achieving external payments adjustment. After World War II, the U.S. government, given its expected surplus, resisted attempts to require surplus countries to adjust policies. By the early 1970s, Europeans had come to enjoy surpluses and rejected reforms to promote more symmetric adjustment, as then was advocated by a U.S. administration newly educated to the difficulties of dealing alone with deficits. Proponents of the floating exchange rates adopted as a last-resort substitute were disappointed by events. Governments felt they could not be indifferent to the fate of their currencies. And floating rates served less to balance trade or current accounts than to equilibrate supplies and demands for financial assets in different currencies.

Thus the outstanding issue for the international monetary system remains how best to assure that surplus and deficit countries share trade and current account adjustment burdens. Surplus countries rarely see the need to "mess with success." Yet if it is only deficit countries that devalue their currencies and otherwise adjust, the upshot is a net deflationary bias in global macroeconomic policies. Sooner or later, surplus countries suffer slower economic growth, necessitating policy stimulus. Often — as Japan now is demonstrating, and probably Germany too — the stimulus is too little, too late. Of course, adjustment should not always be shared equally: when world inflation is a concern, contraction by deficit countries is appropriate; but when inflation appears dormant and world growth inadequate, as at present, it makes sense that surplus countries should expand domestic demand and pick up a good part of the adjustment burden.

One widely publicized reform proposal calls for the institution of explicit target zones for exchange rates. Unfortunately, as exemplified by the fruitless labors of the IMF's Committee of 20 in the early 1970s, reform falters whenever it seeks to specify predetermined targets for exchange rates or automatic rules for adjustment. Targets or rules cannot readily accommodate multiple objectives. Besides, policymakers are generally unwilling to be locked into automatic constraints and it is unclear that currency zones would do anything to elicit or strengthen governmental resolve. Either the zones would prove meaninglessly wide, doing little or nothing to promote the policy changes necessary for adjustment, or they would be set aside at the first sign of conflict with political priorities of the day. Most seriously, it makes little sense to focus narrowly on exchange rate relationships, to the exclusion of growth and inflation considerations, when the overriding issue is adjustment of international imbalances.

Instead, the imbalances themselves should be the focus of attention. And needed to manage them effectively is an executive body with specific and genuine commitment to international coordination. Since an intimate and informal atmosphere is essential for striking sensitive political deals among the major countries, it is crucial that membership of the executive group be kept small; too often, history has shown that outsize memberships frustrate constructive action. Still, to assure appropriate recognition of today's global interdependence in matters of economic growth, trade, and finance, the executive group should include representatives not only of industrial countries but also of the developing countries of Asia, Latin America, and the Middle East; a number of the LDCs are of fast-growing significance in world economic affairs, yet now have little global representation. At all events, the executive group's prime responsibility should be to agree on some current account guideposts — such as limiting imbalances to 1% or 2% of GNP — and then decide how best to correct larger imbalances. Members should examine "objective" indicators of economic performance, form a judgment of the required tilt of macro policies, and pressure one another for policy changes.

In sum, ways have to be found to ensure that the international monetary system accommodates freedom of both trade and finance. Securing that freedom requires discipline on the part of the leading economies and a substantially higher degree of international coordination than has been manifest in most of the postwar period. Policy coordination offers the only credible promise of a stable platform for the global financial system. Without it, the odds on instability would remain uncomfortably high, and both a world economic downturn and a new round of trade and capital restrictions could result. But by knocking heads for action on the part of both deficit and surplus countries, the likelihood of stable, noninflationary economic growth would be vastly improved for the world as a whole and the benefits of today's global financial change would be more fully realized.

Statistical appendix

For key to data in tables see pages 22 and 23.

Effective exchange rates — industrial countries, 14

Real effective exchange rates — developing countries, 15

International banking market size, 15

International bond issues and bank credits, 16

Eurocurrency deposit rates, 17

International bond yields, 17

Central bank discount rates, 18

Day-to-day money rates, 18

Treasury bill rates, 19

Representative money market rates, 19

Commercial bank deposit rates, 20

Domestic government bond yields, 20

Commercial bank lending rates to prime borrowers, 21

Domestic corporate bond yields, 21

Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates — industrial countries

Index numbers, 1980-82 average=100.

Nominal against 15 other industrial-country currencies

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
1980	90.7	100.4	95.5	96.0	106.5	100.0	108.4	99.8	99.4	105.9	100.2	106.5	95.4	105.1	98.2	103.9
1981	99.5	100.2	105.8	104.0	100.4	97.2	98.8	102.1	98.9	101.8	97.1	99.4	98.3	99.2	100.1	103.3
1982	109.8	99.4	98.6	100.1	93.1	102.8	92.8	98.1	101.7	92.3	102.7	94.1	106.3	95.7	101.7	92.8
1983	114.2	100.8	107.8	92.0	87.3	107.6	90.3	91.6	103.6	90.0	105.0	78.4	111.5	96.4	99.4	82.2
1984	122.4	97.3	113.0	94.2	84.4	107.4	86.7	88.1	103.6	88.9	104.0	77.4	110.5	93.9	97.8	84.3
1985	127.1	92.8	115.8	76.3	85.4	107.8	82.1	88.2	104.2	89.5	104.0	75.6	109.5	95.0	95.6	83.9
1986																
June	106.5	87.6	151.1	63.2	86.5	114.6	82.0	84.5	107.1	92.6	109.2	73.2	117.1	98.9	87.8	81.8
July	104.0	87.8	158.6	56.4	86.3	115.8	82.8	82.2	107.5	92.7	110.3	74.0	120.2	99.1	87.3	81.4
August	102.3	87.0	161.7	54.2	86.4	117.6	83.7	78.8	108.1	93.4	111.7	74.0	122.7	100.4	86.7	81.0
September	102.2	87.1	160.8	55.1	86.5	118.3	83.9	77.5	108.5	93.8	112.0	73.7	122.7	100.5	86.6	81.0
October	102.1	87.0	158.4	56.8	87.3	119.4	84.4	74.4	109.0	94.3	112.9	73.4	122.3	102.1	85.9	80.8
November	103.4	87.4	152.7	58.1	87.4	119.5	84.4	75.1	109.1	94.3	112.9	72.7	120.4	102.2	84.8	80.8
November 7	104.3	87.4	152.7	58.2	87.2	118.8	84.1	75.9	108.9	93.9	112.4	72.6	119.6	101.7	85.9	81.0
14	103.1	87.4	153.9	58.0	87.3	119.4	84.4	75.2	109.1	94.2	112.9	72.7	120.7	102.1	85.1	80.8
21	103.3	87.5	152.4	58.0	87.5	119.8	84.5	74.6	109.2	94.4	113.1	72.7	120.6	102.4	84.3	80.8
28	102.9	87.3	152.0	58.2	87.7	120.1	84.6	74.4	109.4	94.5	113.3	72.7	120.8	102.7	83.7	80.7
December 5	102.4	87.5	152.1	58.4	87.6	120.2	84.7	74.4	109.5	94.6	113.4	72.6	120.9	102.9	83.8	80.6
12	103.1	87.8	152.6	59.0	87.4	119.9	84.5	74.9	108.5	94.3	113.0	72.5	119.9	102.4	84.3	80.7

Real against 15 other industrial-country currencies

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
1980	89.9	99.9	102.8	91.7	102.8	103.2	102.5	98.7	99.4	106.6	102.4	101.4	98.3	103.2	95.4	102.5
1981	100.8	99.5	104.8	102.6	100.0	96.9	98.9	102.5	99.4	101.4	97.1	99.6	98.7	96.9	101.3	101.9
1982	109.3	100.6	92.4	105.7	97.3	99.9	98.5	98.8	101.2	91.9	100.5	99.0	103.0	97.9	103.2	95.6
1983	112.7	102.6	96.8	101.9	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.9	105.1	100.4	102.0	90.7
1984	119.6	100.2	97.8	106.4	97.0	98.0	101.8	90.2	103.0	85.9	97.8	91.1	100.1	99.2	100.5	96.0
1985	122.4	96.5	96.6	89.4	100.4	96.7	100.2	92.8	103.3	85.3	96.6	93.3	97.9	101.2	99.5	96.9
1986																
June	102.1	93.3	120.3	80.1	101.7	102.3	101.7	91.6	105.9	84.3	100.6	95.4	105.0	107.0	95.5	96.1
July	99.8	93.6	125.3	72.5	101.8	103.9	102.6	89.3	106.3	84.0	99.4	96.6	108.2	106.7	95.7	95.8
August	98.1	93.2	127.3	69.9	101.6	105.2	104.0	85.7	106.8	84.4	101.4	98.3	109.9	108.4	94.9	95.8
September	97.6	93.6	126.8	71.1	101.2	105.4	104.7	84.4	107.1	84.7	102.8	98.0	110.3	108.9	96.6	95.9
October	98.3	93.0	123.8	73.7	101.7	106.2	105.7	81.2	107.5	84.9	104.3	97.6	110.4	110.8	95.7	95.0
November	99.6	93.5	118.8	75.9	101.6	106.1	105.7	82.0	108.1	84.8	104.4	97.3	108.5	111.0	95.2	95.4

Real against 18 other industrial-country and 22 LDC currencies

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
1980	90.5	98.9	101.3	92.3	103.6	104.5	103.6	99.5	100.0	107.5	103.9	102.2	99.3	103.6	95.8	103.0
1981	99.8	99.4	104.7	102.5	99.5	96.2	98.2	102.0	98.9	100.9	96.6	98.9	98.0	98.7	101.3	101.6
1982	109.6	101.8	94.0	105.2	96.9	99.4	98.1	96.5	101.1	91.8	99.5	98.9	102.6	97.7	103.0	95.4
1983	114.9	104.6	100.4	102.1	94.4	100.6	100.8	93.0	102.1	88.2	99.5	89.2	105.1	100.3	101.9	90.9
1984	120.8	102.7	102.3	106.7	96.4	96.8	101.0	89.7	102.8	85.0	95.9	91.3	99.8	99.0	100.5	95.7
1985	124.0	99.3	101.6	90.1	100.0	95.8	99.7	92.3	102.9	84.5	94.8	94.0	97.8	101.2	99.8	96.8
1986																
June	107.4	94.4	125.1	82.0	102.1	103.1	102.9	92.2	106.5	84.6	100.3	97.6	106.4	107.5	96.3	96.7
July	105.5	94.5	130.0	74.4	102.3	104.8	103.9	90.0	107.1	84.4	99.3	99.1	109.9	107.2	96.6	96.5
August	104.1	94.0	131.8	72.0	102.3	106.6	105.6	86.7	107.9	85.1	101.5	101.1	112.2	109.0	95.9	96.6
September	103.9	94.4	131.9	73.7	102.2	107.0	106.4	85.6	108.3	85.5	103.1	100.9	112.8	109.6	97.6	96.8
October	104.8	93.8	129.1	75.9	102.8	108.1	107.6	82.4	108.9	85.8	104.8	100.8	113.2	111.5	96.6	95.9
November	106.1	94.5	124.0	77.9	102.7	107.9	107.6	83.3	109.4	85.7	104.9	100.3	111.2	111.7	96.2	96.4

Real effective exchange rates – developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1980	115.2	83.8	94.4	93.5	102.6	92.1	90.1	99.4	88.5	97.8	95.0	92.1	97.2	101.6	92.1	99.4
1981	107.8	103.3	108.3	100.6	114.4	103.3	99.7	98.9	99.8	100.3	99.4	101.2	102.0	101.8	99.3	104.7
1982	77.0	112.9	97.3	105.9	82.9	104.6	110.2	101.6	111.7	101.9	105.6	106.7	100.8	96.6	108.6	96.0
1983	71.5	86.2	89.2	104.9	78.8	98.4	117.2	95.8	98.2	97.6	113.9	96.1	101.8	94.5	120.8	93.5
1984	80.1	85.7	90.1	99.6	91.8	105.8	86.0	100.2	96.8	96.5	119.7	107.9	102.4	97.1	119.5	91.1
1985	71.3	84.1	79.8	85.7	90.5	96.4	93.0	104.2	95.8	89.2	116.3	114.8	95.7	94.6	106.7	91.5
1986																
January	63.3	79.7	70.9	72.6	72.5	91.2	90.3	96.4	85.8	79.8	107.1	105.2	87.8	87.8	101.2	82.9
February	61.6	81.7	67.9	71.1	70.2	90.9	89.7	95.0	82.8	77.9	102.9	94.1	84.8	86.7	100.0	80.3
March	62.0	75.2	67.1	70.7	68.3	90.5	89.0	94.5	80.5	76.9	97.8	91.4	82.7	86.8	98.9	74.3
April	61.8	73.6	68.5	70.1	66.6	93.8	89.7	95.5	80.0	76.6	94.6	89.9	80.9	88.7	100.6	71.9
May	60.8	72.8	68.5	68.0	65.7	95.8	89.7	95.2	78.9	75.1	92.9	88.4	79.1	88.4	101.4	71.4
June	61.3	73.0	70.2	67.1	66.6	99.2	90.2	96.2	79.1	75.4	93.1	87.4	79.3	89.5	101.8	70.9
July	61.6	72.1	69.5	65.8	65.0	101.9	89.7	93.4	76.9	70.7	91.1	87.8	78.6	89.0	100.9	69.8
August	61.1	72.1	67.8	64.9	62.3	104.7	89.5	92.0	75.4	69.9	90.8	85.8	78.6	88.9	99.3	67.8
September	58.8	72.3	67.5	64.4	61.0	108.4	89.5	93.9	60.9	70.5	90.8	85.1	78.1	85.0	100.3	67.4
October	59.0	71.9	67.8	63.7	57.1	112.1	89.6	93.8	54.7	70.4	90.1	85.6	77.8	88.4	100.9	67.2
November	59.8	72.2	68.8	63.5	56.4	116.0	90.9	95.8	54.3	71.8	91.4	87.0	78.2	88.6	102.0	67.5

International banking market size

at end of period, billions of dollars

	1981	1982	1983	1984	1985			1986	
					Jun	Sep	Dec	Mar	Jun
Gross claims									
Eurocurrencies, on residents and nonresidents	**1 929**	**2 146**	**2 253**	**2 359**	**2 459**	**2 622**	**2 833**	**2 947**	**3 040**
On nonbanks	557	634	665	694	735	761	822	854	875
On banks	1 372	1 512	1 588	1 665	1 724	1 861	2 011	2 093	2 165
In dollars	1 504	1 694	1 797	1 894	1 924	2 002	2 101	2 138	2 166
In other currencies	425	452	456	465	535	620	732	809	874
Domestic currencies, on nonresidents	**365**	**398**	**398**	**402**	**422**	**451**	**506**	**535**	**578**
On nonbanks	128	132	136	142	150	165	187	186	201
On banks	237	266	262	260	272	286	319	349	377
In dollars	188	211	217	215	209	205	215	203	210
In other currencies	177	187	181	187	213	246	291	332	368
Total	**2 294**	**2 544**	**2 651**	**2 761**	**2 881**	**3 073**	**3 339**	**3 482**	**3 618**
On nonbanks	685	766	801	836	885	926	1 009	1 040	1 076
On banks	1 609	1 778	850	1 925	1 996	2 147	2 330	2 442	2 542
In dollars	1 692	1 905	2 014	2 109	2 133	2 207	2 316	2 341	2 376
In other currencies	602	639	637	652	748	866	1 023	1 141	1 242
Gross liabilities									
Eurocurrencies, to residents and nonresidents	**1 954**	**2 168**	**2 278**	**2 386**	**2 471**	**2 641**	**2 846**	**2 964**	**3 059**
To nonbanks	372	432	479	497	520	546	585	610	632
To official monetary institutions	112	91	88	96	106	109	112	106	109
To other banks	1 470	1 645	1 711	1 793	1 845	1 986	2 149	2 248	2 318
In dollars	1 539	1 741	1 846	1 950	1 969	2 045	2 147	2 166	2 204
In other currencies	415	427	432	436	502	596	699	798	855
Domestic currencies, to nonresidents	**263**	**250**	**260**	**280**	**310**	**341**	**377**	**394**	**418**
To nonbanks	74	70	73	80	89	103	114	121	121
To banks	189	180	187	200	221	238	263	273	297
In dollars	126	116	135	146	154	159	169	166	171
In other currencies	137	134	125	134	156	182	208	228	247
Total	**2 217**	**2 418**	**2 538**	**2 666**	**2 781**	**2 982**	**3 223**	**3 358**	**3 477**
To nonbanks	446	502	552	577	609	649	699	731	753
To banks and official institutions	1 771	1 916	1 986	2 089	2 172	2 333	2 529	2 627	2 724
In dollars	1 665	1 857	1 981	2 096	2 123	2 204	2 316	2 332	2 375
In other currencies	552	561	557	570	658	778	907	1 026	1 102
Net market size	**1 155**	**1 285**	**1 382**	**1 430**	**1 497**	**1 572**	**1 676**	**1 735**	**1 800**

International bond issues and bank credits

millions of dollars

	1983	1984	1985	1986			Jan-Oct	
				Aug	Sep	Oct	1986	1985
By country of borrower								
Industrial countries	**102 652**	**177 077**	**226 711**	**21 612**	**27 766**	**21 260**	**228 184**	**182 305**
Australia	5 737	5 816	14 407	1 117	2 257	2 811	16 040	9 439
Austria	1 290	2 254	2 435	193	584	199	3 281	2 247
Belgium	2 168	1 847	-3 269	142	531	651	4 767	2 142
Canada	6 571	13 124	17 184	1 699	1 130	1 037	14 989	14 511
Denmark	3 941	4 825	3 589	1 788	1 096	1 145	6 844	3 274
Finland	1 271	1 713	1 846	403	339	400	2 763	1 426
France	8 626	11 298	18 773	1 722	1 444	1 691	14 935	16 140
Germany	3 197	2 165	3 452	913	1 083	901	9 920	2 701
Greece	1 291	1 551	1 588	98	60	43	995	1 587
Ireland	1 869	1 377	1 881	590	100	500	3 808	1 371
Italy	4 876	6 933	11 033	248	1 314	347	11 146	9 241
Japan	14 428	17 526	21 269	2 428	2 913	3 662	28 586	18 433
Netherlands	1 213	1 973	2 299	310	395	317	2 999	1 762
New Zealand	802	3 208	2 707	909	455	1 194	6 332	1 894
Norway	1 969	1 324	3 905	1 301	358	752	5 312	3 153
Portugal	1 030	1 796	2 382	390	—	46	2 173	1 682
South Africa	1 300	1 422	825	—	—	—	—	825
Spain	4 977	4 931	3 913	50	1 237	609	6 060	3 542
Sweden	7 144	11 256	9 890	32	730	654	7 632	9 131
United Kingdom	2 726	8 899	25 424	2 932	6 759	508	24 067	19 632
United States	20 276	65 054	69 194	4 347	4 658	3 602	52 081	54 002
*Other**	3 950	6 785	5 447	—	338	192	3 472	4 169
Developing countries	**38 256**	**39 725**	**32 139**	**1 137**	**2 174**	**939**	**18 949**	**25 755**
Latin American countries	**15 592**	**17 464**	**8 115**	**146**	**291**	**335**	**2 421**	**5 703**
Argentina	1 750	4 212	3 700	—	—	—	17	3 700
Brazil	4 475	6 649	—	—	—	50	50	—
Chile	1 405	784	1 085	—	—	—	—	—
Colombia	552	589	1 052	39	—	—	69	52
Mexico	5 138	3 918	109	—	263	—	313	—
Venezuela	237	—	48	—	—	—	—	48
*Other***	2 035	1 312	2 121	107	28	285	1 952	1 903
Asian countries	**12 978**	**15 893**	**18 410**	**639**	**1 302**	**378**	**11 654**	**15 299**
India	968	945	818	85	130	45	994	504
Indonesia	2 363	1 924	451	—	—	—	1 008	451
Korea	4 387	6 201	5 898	50	70	—	2 637	5 216
Malaysia	2 197	2 605	2 220	—	543	—	1 306	1 754
Philippines	878	925	925	—	—	—	—	925
Thailand	747	1 221	1 497	—	—	—	1 016	1 101
Other	1 436	2 072	6 602	504	559	333	4 695	5 349
Middle Eastern and African countries	**9 686**	**6 368**	**5 614**	**352**	**580**	**226**	**4 873**	**4 753**
Algeria	1 993	821	1 450	52	—	—	996	1 300
Nigeria	2 343	985	—	—	—	—	—	—
Turkey	1 106	741	1 203	250	429	226	2 127	765
Other	4 244	3 821	2 960	50	152	—	1 751	2 688
Eastern European countries	**1 294**	**3 244**	**5 236**	**73**	**273**	**166**	**3 746**	**4 223**
Hungary	741	1 386	1 578	73	—	166	1 315	1 162
Soviet Union	93	1 051	1 489	—	223	—	1 521	1 191
*Other****	460	807	2 169	—	50	—	910	1 869
International organizations****	**16 201**	**13 287**	**20 635**	**833**	**1 770**	**1 663**	**15 474**	**17 612**
By type of instrument and currency								
International bond issues	**76 329**	**107 411**	**167 756**	**18 281**	**25 391**	**19 952**	**194 075**	**138 421**
Eurobonds	48 501	79 458	136 731	16 622	22 310	15 729	163 408	112 634
U.S. dollar	38 426	63 593	97 782	12 205	14 225	11 023	102 696	81 052
German mark	3 817	4 604	9 491	1 076	1 543	1 377	15 570	6 480
British pound	1 947	3 997	5 766	739	1 558	144	10 164	4 602
Japanese yen	212	1 212	6 539	991	3 178	1 736	15 802	5 462
European composite units	2 019	3 032	7 038	259	271	162	5 508	6 126
Other	2 078	3 020	10 114	1 352	1 535	1 288	13 669	8 912
Foreign bonds	27 828	27 953	31 025	1 660	3 081	4 223	30 667	25 760
U.S. dollar	4 545	5 487	4 655	—	250	300	3 364	4 032
German mark	2 671	2 243	1 741	—	—	—	—	1 372
British pound	811	1 292	958	—	—	—	321	674
Swiss franc	14 299	12 626	14 954	1 390	1 875	3 169	19 650	11 947
Japanese yen	3 772	4 628	6 379	111	351	359	4 072	5 962
Other	1 730	1 677	2 339	159	606	395	3 259	1 799
International bank credits	**82 074**	**125 922**	**116 964**	**5 373**	**6 591**	**4 076**	**72 278**	**91 475**
Eurocurrency credits	74 222	112 605	110 317	4 626	5 462	3 635	65 628	86 419
Foreign credits	7 852	13 317	6 648	747	1 129	441	6 651	5 056
Total	**158 403**	**233 333**	**284 720**	**23 654**	**31 982**	**24 026**	**266 353**	**229 896**

*Includes multinational organizations. **Includes unallocated. ***Includes COMECON institutions. ****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1983	1984	1985	1986						
	Dec	Dec	Dec	May	Jun	Jul	Aug	Sep	Oct	Nov
Eurodollar										
overnight	9.50	8.63	12.25	6.81	8.25	6.25	5.88	5.88	5.75	6.06
one month	9.69	8.38	8.00	7.00	6.88	6.38	5.69	6.00	5.81	6.25
three months	9.81	8.63	7.88	7.00	6.75	6.38	5.56	6.00	5.81	6.00
six months	10.06	9.13	7.88	7.06	6.75	6.38	5.56	6.00	5.81	5.94
twelve months	10.38	9.81	7.94	7.25	6.81	6.50	5.69	6.19	5.88	6.00
Euro-Canadian dollar										
one month	9.13	9.88	9.00	8.38	8.06	8.06	8.06	7.94	8.06	8.19
three months	9.50	10.81	9.00	8.44	8.38	8.31	8.13	8.19	8.31	8.31
six months	9.75	10.06	9.00	8.50	8.56	8.50	8.50	8.50	8.50	8.19
twelve months	10.00	10.44	9.00	8.75	8.75	8.75	8.63	8.75	8.69	8.56
Euro-French franc										
one month	12.13	10.69	12.50	7.31	7.25	7.13	7.13	7.38	7.38	7.56
three months	12.19	10.69	13.00	7.31	7.31	7.19	7.25	7.88	7.19	8.19
six months	12.31	11.00	13.13	7.31	7.31	7.25	7.31	7.75	7.88	8.37
twelve months	12.63	11.38	12.25	7.50	7.38	7.31	7.38	8.63	7.88	8.37
Euromark										
one month	5.25	5.50	4.75	4.56	4.44	4.63	4.44	4.50	4.44	4.69
three months	5.88	5.50	4.75	4.56	4.50	4.56	4.31	4.50	4.50	4.62
six months	6.13	5.56	4.75	4.63	4.56	4.56	4.31	4.56	4.56	4.69
twelve months	6.38	5.56	4.81	4.75	4.63	4.63	4.31	4.63	4.63	4.69
Euro-Dutch guilder										
one month	5.81	5.69	5.75	6.13	6.25	5.56	5.25	5.31	5.31	5.81
three months	6.00	5.75	5.75	5.81	6.06	5.44	5.13	5.25	5.31	5.69
six months	6.25	5.81	5.81	5.63	5.81	5.38	5.06	5.25	5.31	5.56
twelve months	6.38	5.94	5.88	5.63	5.75	5.38	5.06	5.25	5.31	5.56
Euro-Swiss franc										
one month	3.38	4.44	3.88	4.88	5.00	4.63	4.19	3.81	2.94	3.87
three months	3.75	4.56	4.00	4.69	5.06	4.63	4.13	4.06	3.75	3.87
six months	3.94	4.63	4.00	4.56	4.88	4.63	4.13	4.06	3.75	3.87
twelve months	3.94	4.69	4.06	4.44	4.75	4.63	4.13	4.06	3.81	3.87
Eurosterling										
one month	9.13	9.50	11.69	10.00	10.06	9.94	10.00	10.50	10.81	11.06
three months	9.31	9.88	11.81	9.81	9.81	9.94	9.81	10.19	11.13	11.37
six months	9.50	10.00	11.81	9.69	9.69	9.88	9.63	10.75	11.13	11.37
twelve months	9.81	10.19	11.69	9.44	9.63	9.94	9.56	10.81	11.06	11.37
Euroyen										
one month	6.25	6.19	7.13	4.75	4.69	4.75	5.13	4.94	4.25	4.62
three months	6.31	6.19	6.56	4.75	4.88	4.75	4.75	4.88	4.56	4.50
six months	6.38	6.13	6.50	4.81	4.63	4.69	4.63	4.88	4.56	4.50
twelve months	6.44	6.13	6.38	4.88	4.63	4.69	4.63	4.88	4.56	4.50
European currency unit										
one month	8.81	9.25	9.63	7.31	7.38	7.25	7.25	7.25	7.44	7.56
three months	9.19	9.38	9.63	7.31	7.31	7.19	7.06	7.25	7.56	7.62
six months	9.44	9.50	9.63	7.31	7.25	7.19	6.88	7.25	7.50	7.62
twelve months	9.63	9.63	9.63	7.13	7.25	7.13	6.88	7.25	7.50	7.56

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years at or near end of month

	1984	1985	1986							
	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States companies										
Eurodollar	11.25	9.68	8.93	9.27	9.09	8.97	8.60	9.04	8.76	8.71
Euromark	6.95	6.73	6.62	6.74	6.65	6.55	6.55	6.73	6.66	6.63
Swiss franc	5.73	5.49	5.65	5.62	5.63	5.56	5.63	5.65	5.67	5.73
European governments										
Eurodollar	12.04	10.52	9.86	10.18	10.00	9.97	9.73	9.92	9.85	9.81
Euromark	7.39	7.03	6.82	6.92	6.95	6.81	6.64	6.63	6.78	6.88
Swiss franc	5.24	4.91	4.69	4.69	4.76	4.73	4.66	4.61	4.57	4.58
European currency unit	10.64	10.23	10.18	10.20	10.31	10.02	10.17	10.23	10.49	10.55

Central bank discount rates

at or near end of month

	1983	*1984*	*1985*	*1986*					*Current*	
	Dec	*Dec*	*Dec*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec 11 1986*	*effective since*
United States	8.50	8.00	7.50	6.00	5.50	5.50	5.50	5.50	5.50	Aug 21, 86
Canada	9.96	10.09	9.49	8.51	8.58	8.60	8.55	8.49	8.47	Dec 11, 86
Austria	3.75	4.50	4.00	4.00	4.00	4.00	4.00	4.00	4.00	Aug 19, 85
Belgium	10.00	11.00	9.75	8.00	8.00	8.00	8.00	8.00	8.00	May 29, 86
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.50	9.50	9.00	7.00	7.00	7.00	7.00	7.00	7.00	May 19, 86
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.00	4.50	4.00	3.50	3.50	3.50	3.50	3.50	3.50	Mar 7, 86
Ireland	12.25	14.00	10.25	10.00	10.00	10.00	13.25	13.25	13.25	Oct 24, 86
Italy	17.00	16.50	15.00	12.00	12.00	12.00	12.00	12.00	12.00	May 27, 86
Netherlands	5.00	5.00	5.00	4.50	4.50	4.50	4.50	4.50	4.50	Mar 7, 86
Norway	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jun 6, 83
Portugal	25.00	25.00	19.00	14.50	14.50	14.50	14.50	14.50	14.50	Jun 30, 86
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.50	9.50	10.50	8.00	8.00	7.50	7.50	7.50	7.50	Sep 19, 86
Switzerland	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	Mar 18, 83
United Kingdom	9.00	9.38	11.31	9.81	9.81	9.81	10.81	10.81	10.81	Oct 15, 86
Japan	5.00	5.00	5.00	3.50	3.50	3.50	3.50	3.00	3.00	Nov 1, 86
New Zealand	7.50	13.50	19.80	16.60	16.60	15.70	16.50	n.a.	17.40	Nov 13, 86
South Africa	18.50	21.75	13.50	11.50	11.00	10.50	10.50	10.50	10.00	Dec 10, 86
*Argentina**	15.10	18.19	5.00	6.68	8.79	9.79	10.59	10.59	10.59	Oct 22, 86
Korea	5.00	5.00	5.00	7.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 86
Philippines	8.05	12.11	11.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Jun, 86
Singapore	7.00	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Jul, 85
Thailand	13.00	12.00	11.00	9.00	9.00	8.00	8.00	8.00	8.00	Sep 1, 86
Venezuela	11.00	11.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	Mar, 85

*Percent per month.

Day-to-day money rates

monthly averages

	1983	*1984*	*1985*	*1986*							
	Dec	*Dec*	*Dec*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*
United States	9.47	8.38	8.27	6.98	6.85	6.91	6.55	6.16	5.92	5.84	5.64
Canada	8.78	10.50	9.23	9.58	8.41	8.19	8.38	8.10	8.10	8.38	8.52
Austria	5.75	7.63	7.25	4.75	4.88	4.88	5.13	5.13	5.50	5.37	5.00
Belgium	7.39	9.12	6.60	8.67	6.44	5.18	6.34	6.37	5.76	6.36	6.00
Finland	16.70	15.07	11.96	11.20	12.02	10.83	10.80	24.17	13.86	11.93	11.80
France	12.27	10.95	9.01	8.18	7.38	7.22	7.28	7.05	7.08	7.31	7.31
Germany	5.61	5.62	4.64	4.76	4.30	4.39	4.61	4.51	4.38	4.38	4.58
Ireland	12.19	14.50	9.62	12.63	10.50	9.50	9.63	9.75	9.63	11.00	13.13
Italy	17.88	17.25	14.75	15.02	13.06	12.34	12.11	11.78	11.25	10.98	9.67
Netherlands	5.84	5.60	5.75	5.49	6.69	6.06	6.13	5.56	5.31	5.38	5.60
Norway	12.30	12.50	12.40	13.50	17.00	14.00	14.00	14.00	14.00	14.00	n.a.
Spain	16.98	12.18	9.92	12.20	12.04	12.03	12.26	12.34	11.58	11.68	11.69
Sweden	11.52	11.88	11.83	11.65	11.30	9.88	9.56	9.52	8.92	10.00	10.00
Switzerland	1.88	1.50	2.00	2.25	2.00	1.75	2.25	2.00	2.00	1.00	1.00
United Kingdom	7.78	6.31	9.72	8.96	8.55	10.53	8.98	8.70	8.06	11.19	10.73
Australia	4.55	10.98	18.37	15.06	12.31	13.20	13.43	16.42	17.22	17.13	16.47
Japan	6.44	6.41	8.02	4.70	4.21	4.39	4.50	4.55	4.60	4.37	3.77
South Africa	16.06	21.13	12.50	12.00	10.63	10.69	10.75	9.81	9.63	9.63	8.87
*Argentina**	14.65	17.75	4.50	4.50	4.50	5.00	5.00	7.00	6.00	7.00	7.00
Brazil	184.69	272.02	352.23	16.64	15.50	18.30	25.93	35.60	45.58	44.24	n.a.
Hong Kong	13.90	6.80	6.10	7.81	6.02	6.91	5.95	5.64	4.93	3.21	n.a.
Korea	11.40	10.00	8.80	11.00	10.30	10.00	10.60	9.30	9.50	9.30	9.30
Philippines	31.18	15.22	15.03	15.62	12.43	11.61	10.16	n.a.	n.a.	n.a.	n.a.
Singapore	7.05	6.01	4.53	4.82	5.07	4.49	3.73	3.95	2.26	2.47	2.62
Taiwan	7.65	8.07	4.50	3.75	3.50	4.53	3.50	3.50	3.50	3.50	3.60

*Percent per month.

Treasury bill rates

bond equivalent yields, at or near end of month

	1983	*1984*	*1985*	*1986*							
	Dec	*Dec*	*Dec*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*
United States	9.28	7.99	7.25	6.24	6.45	6.13	5.93	5.23	5.30	5.25	5.44
Canada	9.71	9.84	9.24	9.02	8.33	8.59	8.26	8.33	8.35	8.30	8.24
Belgium	11.00	10.90	9.89	8.36	7.71	7.45	7.45	7.45	7.45	7.48	7.35
Ireland	12.01	15.10	11.15	9.69	8.76	9.16	10.13	10.65	10.61	13.34	13.74
Italy	16.29	14.19	12.70	12.03	10.93	10.50	10.44	10.13	9.49	9.64	n.a.
Netherlands	5.63	5.88	5.69	6.88	6.50	5.88	5.75	4.75	5.63	5.38	5.81
Spain	14.46	12.00	9.25	9.25	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Sweden	11.75	11.83	12.49	10.19	9.90	9.85	9.29	9.25	8.66	8.44	9.05
United Kingdom	9.04	9.33	11.49	10.09	9.56	9.52	9.76	9.56	9.93	10.85	10.96
Australia	8.54	12.27	19.40	12.84	12.78	12.38	14.98	17.20	17.51	16.18	15.49
Japan	4.91	4.91	4.91	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39
New Zealand	7.80	13.50	17.62	20.41	17.34	15.64	16.75	n.a.	n.a.	n.a.	n.a.
South Africa	18.43	21.94	12.99	11.58	11.02	10.75	10.22	9.51	9.20	9.17	8.62
Brazil	179.15	273.03	379.77	16.79	15.90	18.60	26.30	36.00	42.00	45.00	33.00
Mexico	53.78	48.67	72.98	80.84	80.74	88.50	n.t.	n.t.	n.t.	n.t.	103.77
Philippines	15.99	47.14	16.45	19.65	15.79	14.67	14.59	n.a.	n.a.	n.a.	n.a.
Singapore	2.59	2.91	2.94	2.58	2.35	2.42	2.54	2.15	2.01	1.99	1.93

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1983	*1984*	*1985*	*1986*							
	Dec	*Dec*	*Dec*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*
United States	9.89	8.34	8.01	7.17	6.69	6.80	6.39	5.65	5.96	5.81	5.79
Canada	9.87	10.10	9.45	8.85	8.65	8.65	8.55	8.35	8.50	8.50	8.35
Belgium	11.15	10.85	9.89	8.11	7.71	7.40	7.40	7.40	7.35	7.35	7.40
France	12.19	10.69	9.12	7.50	7.24	7.24	7.25	7.13	7.43	7.50	n.a.
Germany	6.30	5.75	4.80	4.60	4.60	4.55	4.65	4.30	4.40	4.60	4.65
Ireland	12.19	15.13	12.00	10.75	10.25	9.25	10.75	10.63	11.25	14.00	14.44
Italy	17.88	16.88	15.13	12.75	12.13	12.25	11.38	11.00	n.a.	n.a.	n.a.
Netherlands	6.00	5.75	5.75	5.56	6.00	6.19	5.56	5.25	5.44	5.44	5.81
Portugal	24.11	24.57	20.71	17.76	17.07	16.89	15.95	n.a.	n.a.	n.a.	n.a.
Spain	19.00	12.21	10.51	12.27	11.63	12.06	12.51	12.18	11.53	11.41	11.52
Switzerland	3.88	5.00	4.75	4.50	4.69	5.50	4.88	4.25	4.25	4.19	4.00
United Kingdom	9.31	9.88	12.75	10.13	9.69	9.75	9.88	9.63	10.38	11.13	11.44
Australia	9.05	12.90	19.75	16.10	14.85	14.80	15.10	17.70	17.85	16.45	15.85
Japan	6.45	6.33	7.03	4.53	4.66	4.64	4.65	4.53	4.75	4.54	n.a.
New Zealand	11.75	15.00	20.00	21.30	16.10	17.10	16.80	16.30	16.50	16.50	16.50
South Africa	19.12	22.78	13.35	11.95	11.25	10.80	10.55	9.35	9.55	9.65	8.90
Chile	20.68	20.68	22.42	19.56	12.68	14.03	15.39	11.35	12.68	20.98	n.a.
Hong Kong	14.88	8.25	6.50	7.81	6.02	6.75	6.31	5.00	5.25	4.38	n.a.
Indonesia	19.50	19.00	15.00	16.50	16.00	15.00	15.00	14.00	14.50	14.25	14.50
Korea	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Malaysia	9.80	10.30	8.20	15.00	9.80	10.00	9.80	11.75	12.00	9.50	6.70
Philippines	15.61	33.21	14.61	19.32	14.57	12.28	12.47	n.a.	n.a.	n.a.	n.a.
Singapore	8.44	7.00	5.88	4.94	5.06	4.88	4.31	3.94	3.25	2.94	3.19
Taiwan	8.07	7.85	4.10	3.99	3.58	3.68	3.27	2.81	2.65	2.65	2.80
Thailand	16.00	12.00	15.50	10.00	9.50	8.50	8.00	8.00	7.50	7.50	7.75

Commercial bank deposit rates

at or near end of month

	1983	1984	1985	1986							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	9.70	8.35	7.75	6.55	6.82	6.65	6.33	5.47	5.80	5.75	5.78
Canada	9.82	10.05	9.40	8.80	8.60	8.60	8.50	8.30	8.45	8.45	8.30
Austria	6.50	7.50	6.50	4.88	5.19	5.13	5.13	5.13	5.75	5.62	5.37
Belgium	11.25	10.63	9.63	8.13	7.31	7.19	7.25	7.19	7.25	7.31	7.37
Denmark	6.00	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Finland	5.25	5.25	4.75	3.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
France	7.66	7.04	6.12	5.72	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Germany	5.90	5.25	4.40	4.35	4.35	4.35	4.45	4.45	4.40	4.50	4.60
Ireland	11.75	14.63	11.87	10.75	10.00	10.00	10.00	10.00	10.50	12.00	14.13
Italy	13.25	11.64	11.85	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Netherlands	6.13	5.69	5.81	5.44	5.88	6.06	5.44	5.19	5.31	5.31	5.69
Norway	12.75	12.75	12.00	12.25	12.25	13.00	13.00	13.00	13.00	13.00	n.a.
Portugal	21.50	28.00	20.00	18.50	18.50	15.50	15.50	15.50	15.50	n.a.	n.a.
Spain	12.62	11.64	9.64	9.42	9.20	9.04	8.89	8.89	8.78	8.75	n.a.
Sweden	11.70	11.45	12.18	10.65	10.60	10.10	9.80	9.70	9.27	8.83	9.85
Switzerland	3.50	4.50	4.50	4.25	4.44	5.25	4.63	4.00	4.00	3.94	3.75
United Kingdom	9.31	9.88	11.75	10.13	9.69	9.63	9.88	9.63	10.37	11.13	11.25
Australia	10.40	12.75	18.80	14.68	14.21	14.00	14.46	16.68	17.82	16.71	15.76
Japan	6.40	6.38	7.05	4.80	4.90	4.65	4.70	4.80	4.95	4.63	4.59
New Zealand	11.75	15.25	19.98	20.16	16.42	15.10	16.47	16.57	15.50	16.60	19.00
South Africa	20.13	22.88	13.20	12.00	11.40	11.00	10.80	9.75	9.50	9.75	9.25
Argentina*	14.50	31.23	5.40	4.34	4.25	4.28	4.48	6.18	6.94	7.65	7.97
Brazil	23.00	27.00	18.00	21.50	26.00	29.00	30.00	42.00	44.00	49.00	85.00
Chile	20.57	20.68	23.60	19.98	13.62	15.94	16.49	13.62	16.49	20.70	n.a.
Hong Kong	14.88	8.25	6.50	7.81	6.02	6.75	6.31	5.00	5.25	4.38	n.a.
Korea	7.60	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Malaysia	7.75	9.58	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.50
Mexico	57.15	47.45	72.90	80.20	80.00	85.50	87.50	87.50	94.30	94.30	94.30
Philippines	14.96	31.01	12.34	12.37	14.63	11.56	10.12	n.a.	n.a.	n.a.	n.a.
Singapore	7.44	6.13	5.26	4.76	4.94	4.82	4.26	3.88	3.19	2.88	3.13
Taiwan	7.00	6.50	5.25	4.50	4.50	4.50	4.50	4.25	4.50	4.00	4.00
Thailand	10.00	13.00	10.50	8.50	8.50	8.50	7.50	6.75	6.75	6.75	6.75
Venezuela	12.00	12.50	8.00	8.00	8.00	9.00	9.00	9.00	8.00	8.00	8.00

*Percent per month.

Domestic government bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	12.00	11.61	9.49	7.70	8.37	7.79	7.88	7.51	7.95	7.81	7.69
Canada	12.02	11.66	10.04	9.32	9.52	9.42	9.36	9.16	9.44	9.53	9.26
Austria	8.02	8.04	7.61	9.00	7.14	7.19	7.20	7.11	7.06	7.25	7.36
Belgium	11.89	11.56	9.60	7.46	7.93	7.86	7.47	7.24	7.36	7.31	n.a.
Denmark	12.96	14.60	9.67	8.63	10.17	10.17	10.64	11.24	11.11	11.16	11.80
Finland	11.16	10.73	10.58	8.89	8.27	8.27	8.25	8.15	7.75	7.90	7.74
France	13.96	12.70	11.33	8.53	8.58	8.65	8.55	8.05	8.51	8.97	n.a.
Germany	8.38	7.17	6.57	5.78	6.31	6.17	6.07	5.95	6.26	6.44	6.33
Ireland	14.25	14.90	11.84	8.57	9.17	9.31	10.33	n.a.	12.46	13.65	13.49
Italy	17.69	14.52	13.66	12.27	10.87	10.83	11.06	10.81	10.43	10.26	n.a.
Netherlands	8.58	7.72	6.96	6.15	6.39	6.38	6.22	6.03	6.04	6.22	6.30
Norway	12.50	12.00	13.10	12.80	12.80	13.10	13.42	13.40	13.40	13.40	n.a.
Portugal	22.11	22.23	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	17.25	13.93	12.30	12.06	11.35	10.98	11.52	11.52	11.10	10.15	10.29
Sweden	12.30	12.04	12.11	9.81	10.06	9.79	9.76	9.63	9.49	9.31	10.35
Switzerland	4.53	4.60	4.42	4.24	4.39	4.43	4.39	4.26	4.26	4.19	4.16
United Kingdom	9.94	10.25	10.35	8.73	9.11	9.32	9.45	9.31	10.31	10.40	10.58
Australia	13.65	13.50	14.85	12.25	12.65	12.95	14.02	14.10	13.85	13.60	13.60
Japan	7.45	6.47	5.92	4.79	5.57	4.90	4.83	4.57	4.65	4.95	n.a.
New Zealand	10.50	16.90	17.00	16.80	15.50	15.40	16.20	15.90	15.35	15.20	16.00
South Africa	13.64	16.55	18.09	17.40	17.09	16.99	16.00	14.03	15.24	15.83	14.13
Philippines	14.47	18.54	n.t.	n.t.	n.t.	n.t.	n.t.	n.a.	n.a.	n.a.	n.a.
Venezuela	13.50	14.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

Commercial bank lending rates to prime borrowers

at or near end of month

	1983	1984	1985	1986							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	11.00	10.75	9.50	8.50	8.50	8.50	8.00	7.50	7.50	7.50	7.50
Canada	11.00	11.25	10.00	11.25	10.25	10.25	9.75	9.75	9.75	9.75	9.75
Austria	9.25	9.25	9.00	9.25	9.25	9.00	9.00	9.00	9.00	9.00	9.00
Belgium	13.75	14.00	11.50	10.50	10.50	9.75	9.75	9.75	9.75	9.75	9.75
Denmark	10.00	10.50	8.50	7.50	7.50	7.50	7.50	8.00	8.00	8.00	8.00
Finland	10.18	10.68	10.37	9.49	8.78	8.82	8.76	8.79	8.77	8.75	n.a.
France	12.25	12.00	10.60	10.10	9.60	9.60	9.60	9.60	9.45	9.45	9.45
Germany	7.75	7.75	7.25	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75
Ireland	13.75	15.75	12.50	14.50	13.50	12.25	12.25	12.25	12.25	15.75	15.75
Italy	18.75	18.00	15.88	15.25	14.50	13.50	13.50	13.50	13.00	13.00	13.00
Netherlands	7.00	6.25	6.25	6.00	7.00	6.75	6.50	5.88	5.88	5.88	6.12
Norway	13.50	13.00	12.40	13.75	14.75	15.50	15.25	15.25	15.75	15.88	n.a.
Portugal	30.00	29.00	22.50	21.00	21.00	18.00	18.00	18.00	18.00	n.a.	n.a.
Spain	17.31	15.84	14.75	14.52	14.50	14.44	14.37	14.36	14.29	14.25	14.23
Sweden	13.50	14.50	15.05	12.75	12.75	12.75	12.75	12.75	11.50	11.50	11.50
Switzerland	6.00	6.00	6.00	6.00	5.75	5.75	5.75	5.75	5.75	5.75	5.75
United Kingdom	9.00	9.50	11.50	10.50	10.00	10.00	10.00	10.00	10.00	11.00	11.00
Australia	12.75	14.00	21.00	19.00	18.25	18.00	17.25	18.50	19.00	19.00	18.45
Japan	5.89	5.70	5.71	5.18	4.95	4.71	4.57	5.24	5.24	n.a.	n.a.
New Zealand	11.00	14.00	21.00	22.00	21.00	18.00	17.00	16.50	17.00	17.00	18.50
South Africa	20.00	24.00	16.50	15.50	14.50	14.50	14.50	14.00	13.50	13.50	13.50
Argentina*	15.50	32.05	7.30	4.80	5.52	5.35	5.57	7.70	8.62	8.70	8.85
Brazil	24.00	31.00	19.00	22.50	26.00	29.00	32.00	44.00	46.00	51.00	88.00
Chile	30.90	60.82	33.34	31.99	30.60	29.38	28.77	26.38	23.51	27.20	n.a.
Hong Kong	13.50	11.00	7.00	8.00	7.50	7.50	7.50	6.50	6.50	6.50	6.50
Indonesia	19.75	23.50	18.75	19.50	19.00	19.00	18.75	18.75	18.75	18.25	18.25
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Malaysia	11.00	12.00	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50
Mexico	56.44	47.54	65.66	73.48	75.02	76.97	81.36	84.40	87.72	91.48	94.19
Philippines	18.00	44.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	8.98	9.40	7.20	7.15	7.15	7.15	7.05	6.83	6.45	6.28	6.10
Taiwan	10.25	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Thailand	16.00	16.50	15.50	14.00	14.00	14.00	12.75	12.00	12.00	12.00	12.00
Venezuela	16.00	16.00	13.00	13.00	13.00	14.00	14.00	14.00	13.00	13.00	13.00

*Percent per month.

Domestic corporate bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986							
	Dec	Dec	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
United States	12.63	12.25	10.15	9.00	9.20	9.00	9.25	8.63	9.00	9.00	8.88
Canada	12.89	12.42	10.74	12.24	10.35	10.10	10.19	10.00	10.32	10.39	n.a.
France	14.35	12.94	11.76	9.82	9.44	9.85	9.12	8.37	8.92	9.36	n.a.
Germany	8.30	7.20	6.90	6.60	6.40	6.50	6.60	6.40	6.30	6.40	n.a.
Netherlands	8.51	7.51	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Norway	13.25	12.75	14.00	14.00	14.00	14.25	14.90	15.00	15.50	15.50	n.a.
Spain	20.07	18.32	14.92	13.91	13.99	13.71	13.22	13.68	13.38	13.24	13.48
Sweden	12.21	12.33	13.25	10.93	11.20	11.04	10.88	10.99	10.82	10.77	11.72
Switzerland	4.92	5.09	4.93	4.98	4.77	4.83	4.84	4.77	4.77	4.73	4.71
United Kingdom	11.57	11.64	11.47	9.80	10.05	10.32	10.49	10.34	11.58	11.48	11.71
Japan	7.09	6.21	6.90	5.14	5.20	5.14	4.74	5.14	n.a.	n.a.	n.a.
Korea	14.20	15.00	13.60	12.40	12.80	12.80	12.90	12.80	12.80	12.80	12.80
Venezuela	18.00	18.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00

Key to data in tables

I. International markets

Data on the *international banking market size* are based on resident and nonresident Eurocurrency (i.e., foreign currency) assets and liabilities and on nonresident domestic currency assets and liabilities of banks in nearly all European countres, the Bahamas, Bahrain, Canada, Cayman Islands, Hong Kong, Japan, Netherlands Antilles, Panama, Singapore, and the United States. All assets and liabilities of international banking facilities (IBFs) of banks in the United States are treated as Eurocurrencies.

An *international bond issue* may be either a Eurobond issue or a foreign bond issue. A *Eurobond issue* is one placed principally in countries other than that of the currency in which the bond is denominated, usually through an international syndicate. A *foreign bond issue* is one issued by a nonresident borrower on the market of a single country and denominated in that country's currency. Data on new international bond issue volume include all publicly announced issues of straight bonds, convertibles, bonds with warrants, floating rate notes, and certificates of deposit with an original maturity of three years or more (one year or more beginning in 1985), whether publicly or privately placed.

An *international bank credit* may be either a Eurocurrency credit or a foreign credit. A *Eurocurrency credit* is one denominated in a currency that is foreign to the country of the bank office extending the credit. A *foreign credit* is one extended to a nonresident borrower and denominated in the domestic currency of the country in which the bank office extending the credit is located. Data on new international bank credit volume include all publicly announced bank credits with an original maturity of one year or more (term loans, revolving lines of credit, and facilities to back up the issuance of other financial instruments such as commercial paper, short-term notes, certificates of deposit and banker's acceptances).

Data on international bond issues and bank credits through 1984 were compiled by Morgan Guaranty Trust Company. Beginning in January 1985 these data are based on figures published in the OECD's *Financial Statistics Monthly*.

II. Domestic markets

Central bank discount rates

Rates shown are the official discount rates with the exception of:

Ireland — Short Term Facility rate.

South Africa — discount rate for 90-day banker's acceptances.

United Kingdom — rate of discount for outright purchases of 15- to 33-day bank bills.

Day-to-day money rates

Argentina—7-day interbank money regulated by the central bank.

Austria — day-to-day interbank rate.

Australia — effective interest rate in the official short-term money market.

Belgium — day-to-day loan rate in the call money market.

Brazil — interbank overnight money.

Canada—chartered banks' day-to-day loans.

Finland — Bank of Finland call money.

France — interbank call money against private paper.

Germany — interbank call money.

Hong Kong — interbank 24-hour call rate.

Ireland — interbank call money.

Italy — interbank 48-hour call money.

Japan—Tokyo interbank call money, unconditional lenders rate.

Korea — overnight interbank call money.

Netherlands — open-market call money.

Norway — day-to-day interbank rate.

Philippines — interbank call loan rate.

Singapore — interbank overnight money.

South Africa — discount houses basic call rate.

Spain — day-to-day interbank rate.

Sweden — interbank call money.

Switzerland — call money.

Taiwan — private interbank overnight loan rate.

United Kingdom — call money.

United States — federal funds rate.

Treasury bill rates

Australia — 13-week Treasury notes at tender.

Belgium — new issue of 3-month Treasury certificates.

Brazil — 3-month Treasury bills.

Canada — 3-month Treasury bills at tender.

Ireland — 3-month central bank exchequer bills at tender.

Italy — 6-month Treasury bills.

Japan — 60- to 62-day noninterest-bearing discount government bills.

Mexico — 3-month Federal Treasury bills.

Netherlands — 3-month Treasury bills.

New Zealand — tap issue rate for 3-month Treasury bills until December 1984. As of January 1985, 3-month Treasury bills at tender.

Philippines — simple average of 91-day Treasury bills at tender until June 1984. Beginning July 1984 rates refer to the weighted average interest rate on 91- to 183-day Treasury bills sold to banks under negotiated basis.

Singapore — 91-day Treasury bills at tender.

South Africa — 3-month Treasury bills at tender.

Spain — 6-month Treasury bills at tender until March 1984. As of April 1984, 3-month Treasury bill repos reported by the Bank of Spain (average of quotations during the month).

Sweden — new issues of 3-month Treasury bills until June 1982. New series as of July 1982, 6-month Treasury discount notes, market rate.

United Kingdom — 91-day Treasury bills at tender.

United States — 3-month Treasury bills.

Representative money-market rates

Australia — buying rate for 90-day bank accepted commercial bills.

Belgium — 4-month Fonds des Rentes certificates.

Canada — 3-month prime finance company paper.

Chile — central bank 60-day fixed rate promissory notes (PDBC) at tender.

France — 3-month interbank money against private paper.

Germany — 3-month interbank deposits.

Hong Kong — 3-month interbank deposits.

Indonesia — 1-month interbank deposits.

Ireland — 3-month interbank deposits.

Italy — 3-month interbank deposits.

Japan — 3-month "gensaki" rate.

Korea — 3-month financial bill.

Malaysia — 3-month interbank deposits.

Netherlands — 3-month interbank deposits.

New Zealand — 90-day commercial bills.

Philippines—weighted average interest rate for 90-day promissory rates.

Portugal — average of 30- to 90-day interbank deposits.

Singapore — 3-month banker's acceptances.

South Africa—90-day banker's acceptances.

Spain — 3-month interbank rate reported by the Bank of Spain (average of quotations during the month).

Switzerland — 3-month interbank deposits.

Taiwan — 90-day banker's acceptances.

Thailand — interbank call money.

United Kingdom — 3-month interbank deposits.

United States — 3-month prime industrial paper.

Commercial bank deposit rates

Argentina — nominal 30-day time deposits. Average of bank rates published by the central bank until August 1984. New series as of September 1984, 30-day acceptances maximum interest rate.

Austria — 3-month time deposits.

Australia — 3-month certificates of deposit.

Belgium — special maximum rate for 3-month time deposits in large amounts.

Brazil — 6-month certificates of deposit with prefixed yields until July 1982. New series as of August 1982, 6-month certificates of deposit reported as a spread above monetary correction which is set every month in relationship to inflation.

Canada — 3-month time deposits.

Chile — 30-day time deposits.

Denmark — time deposits of 3-months' notice.

Finland — time deposits of six-month notice.

France — 3-month time deposits of FF. 1,000,000.

Germany — 3-month time deposits in large amounts.

Hong Kong — negotiable 3-month time deposits of more than HK$500,000.

Ireland — 3-month deposits.

Italy — 3-month time deposits of Lit. 100 million or more.

Japan — 90-day negotiable certificates of deposit issued by the Tokyo office of Morgan Guaranty Trust Company.

Korea — 3-month time deposits.

Malaysia — 3-month time deposits.

Mexico — 3-month certificates of deposit until September 1983. New series as of October 1983, 3-month promissory notes.

Netherlands — 3-month time deposits in large amounts.

New Zealand — 6-month transferable certificates of deposit.

Norway — 3-month special term deposits.

Philippines — weighted average interest rates on 60- to 90-day time deposits of sample commercial banks.

Portugal — 90- to 180-day time deposits until May 1984. New series as of June 1984, 180-day to one-year time deposits.

Key to data in tables — continued

Singapore — 3-month certificates of deposit.

South Africa — 3-month negotiable certificates of deposit.

Spain — deposits over 6 months and less than 1 year for Pts. 1 million or more reported by the Bank of Spain.

Sweden — 3-month certificates of deposit.

Switzerland — 3-month time deposits.

Taiwan — maximum rate for 3-month time deposits.

Thailand — 3-month time deposits.

United Kingdom — 3-month time deposits.

United States — 3-month negotiable certificates of deposit issued by Morgan Guaranty Trust Company.

Venezuela — 6-month negotiable certificates of deposit for domestic depositors only.

Domestic government bond yields

Austria — Austrian National Bank average yield on all outstanding government bonds.

Australia — secondary market yield for 10-year Treasury bonds.

Belgium — Belgium National Bank secondary market average yield on central government bonds of more than 5 years' maturity quoted on Brussels Stock Exchange.

Canada — Bank of Canada average yield on all direct government bonds due or callable in 10 years or more.

Denmark — 12% serial bonds maturing 2001 until April 1983. New series as of May 1983, 10% serial bonds maturing 2004.

Finland — rate of interest at issue on central government bonds intended for public subscription, weighted by sales of bonds in the latter half of each month.

France — INSEE secondary market weighted average yield of public sector bonds with a remaining maturity of 10 years or more.

Germany — Frankfurter Allgemeine Zeitung 10-year public authority bond average.

Ireland — 15-year government bonds.

Italy — average yield on fixed-interest government bonds, not including irredeemable bonds, weighted by the amounts in circulation, for maturities of 9 years or more.

Japan — secondary market average yield on longest-term life government bonds as quoted by the Securities Dealers Association of Japan.

Netherlands — Central Bureau of Statistics (CBS) average yield on three latest government bonds.

New Zealand — average yield on government bonds maturing after 5 years.

Norway — 5% government bond of 1996 until December 1982. New series as of January 1983, average yield of long-term government bonds.

Philippines — weighted average interest rate of outright sales on secondary transactions for central bank certificates of indebtedness.

Portugal — yield of 4% Centenary Loan of 1940.

South Africa — 25-year government bonds until August 1983; 20-year Republic of South Africa bonds until April 1984; new series as of May 1984, secondary market yield for the 13% due 2005 Republic of South Africa bond.

Spain — Bank of Spain secondary market weighted average yield of several central government issues with more than 2 years' maturity (average of quotations during the month).

Sweden — 15-year government bonds until October 1983. New series as of November 1983, 5-year government bond yield index, market rate.

Switzerland — Swiss Confederation bond average.

United Kingdom — F.T. (*Financial Times*) Actuaries 25-year government stock.

United States — Morgan Guaranty 20-year U.S. Government Bond Index.

Venezuela — Banco Central average yield on public-sector bond issues.

Commercial bank lending rates to prime borrowers

Argentina — average rate on 30-day loans.

Austria — overdraft rate for prime borrowers, including commission.

Australia — overdraft rate. Maximum indicator rate applying to loans of A$100,000 or more for major trading banks.

Belgium — prime overdraft rate.

Brazil — prefixed rate applied to working capital loans until July 1982; monetary-corrected free rate applied to working capital loans from August 1982 to July 1983. New series as of August 1983, maximum legal rate reported as a spread above monetary correction which is set every month in relationship to inflation. Charges for fees and commissions are often added.

Canada — prime rate.

Chile — average prime rate of six major commercial banks.

Denmark — approximate rate for loans and advances to prime borrowers.

Finland — average rates on total commercial bank lending.

France — base lending rate, excluding a commission of .05% per month on highest debit balance during the month. A spread above base rate is often added.

Germany — approximate effective overdraft rate for prime borrowers.

Hong Kong — prime lending rate set by the Hong Kong Association of Banks.

Indonesia — prime rate for domestic affiliates of foreign companies.

Ireland — AA corporate borrowing rate.

Italy — unsecured overdraft rate for prime borrowers.

Japan — average contracted interest rate for short-term loans of city banks. In addition, compensating balances may be required.

Korea — prime rate.

Malaysia — Bank of Commerce Berhad base lending rate.

Mexico — base rate or average cost of money for banks determined monthly by the Banco de Mexico S.A.

Netherlands — overdraft rate for prime borrowers, including commission.

New Zealand — overdraft rate for prime borrowers.

Norway — overdraft rate, including a commission of .25% per quarter on the total line of credit until January 1983. New series as of February 1983, special rate of first class, large borrowers.

Philippines — prescribed administrative ceiling for unsecured loans with maturities of 365 days and below, including charges until December 1982. New series as of January 1983, modal rate to prime borrowers.

Portugal — maximum rate for 90- to 180-day loans.

Singapore — most common overdraft rate, major banks.

South Africa — unsecured overdraft rate for prime borrowers.

Spain — private banks' average interest rate for 1-year loans reported by the Bank of Spain.

Sweden — overdraft rate for prime industrial borrowers, commission not included.

Switzerland — unsecured overdraft rate for prime borrowers, excluding commission of .25% per quarter on average or highest outstanding debit balance in quarter.

Taiwan — maximum rate for 3- to 12-month secured loans. Rate is an indication only and may vary from actual bank lending rate which is subject to volatile interbank rates.

Thailand — prime rate.

United Kingdom — clearing bank base lending rate. A spread above base rate is often added.

United States — prime rate of Morgan Guaranty Trust Company.

Venezuela — representative rate for domestic prime borrowers only.

Domestic corporate bond yields

Canada — McLeod, Young, Weir Co. Ltd., weighted long-term bond yield index for AA corporates.

France — INSEE secondary market weighted average yield of private company bonds with a remaining maturity of 10 years or more.

Germany — Bundesbank secondary market weighted average yield of industrial bonds with a remaining maturity of more than 3 years.

Japan — secondary market yield for NTT bond maturing March 1987.

Korea — average of yields on corporate bonds guaranteed by local banks, with an original maturity of 3- 2- 5-years.

Netherlands — CBS average yield on three 6%-6.5% corporate bonds until December 1981. As of January 1982, CBS secondary market weighted average yield on all commercial bank issues with a quotation between 92% and 103%.

Norway — 5.75% Dalen Portland-Cement bond of 1969-1984 until December 1982. New series as of January 1983 average yield of long-term industrial bonds.

Spain — Bank of Spain seconary market weighted average yield of several corporate issues with more than 3 years' maturity (average of quotations during the month).

Sweden — Central Satistical Bureau average yield on industrial bonds.

Switzerland — average yield on outstanding bonds of four leading Swiss companies. Mixture changed as of January 1982.

United Kingdom — *Financial Times* secondary market average yield of industrial and financial company debentures and loan stocks with an average of 25 years to maturity.

United States — Salomon Brothers index of new issues yields for Aa industrial bonds with five-year call protection.

Venezuela — average of yields on 15-year bond issues of Electricidad de Caracas.

World Financial Markets

Published by
Morgan Guaranty Trust Company of New York
International Economics Department
23 Wall Street, New York, NY 10015

Member, Federal Deposit Insurance Corporation. Printed in U.S.A.

3/13/87 BG 702-2

World Financial Markets

Morgan Guaranty Trust Company of New York

January 1987

The Asian NICs and U.S. trade, 1
- Growth through exports, 2
- International trade patterns, 5
- Policy inertia in Taiwan and Korea, 7
- Recommendations, 10

Statistical appendix, 13

The Asian NICs and U.S. trade

Hong Kong, Korea, Singapore, and Taiwan — Asia's four principal newly industrializing countries (NICs) — have recently caught the limelight on the world trade stage. In the mid-1960s they accounted for less than 2% of world exports; this year their share will reach a remarkable 6½%, of which two-fifths will be sold in the United States. Indeed, the United States serves as their principal outlet, taking $30 billion or 54% of the $56 billion increase in their exports since 1980 (see Chart 1). U.S. imports from the four reached a CIF value of almost $50 billion last year — 13% of all U.S. imports — and were roughly equal to the total of U.S. imports from France, Germany, and the United Kingdom. The Asian NICs are among the few LDCs to whom U.S. exports have increased since the early 1980s. Even so, they purchase only about 9% of all U.S. exports. They therefore accounted for nearly one-fifth of the overall $170 billion U.S. trade imbalance recorded last year.

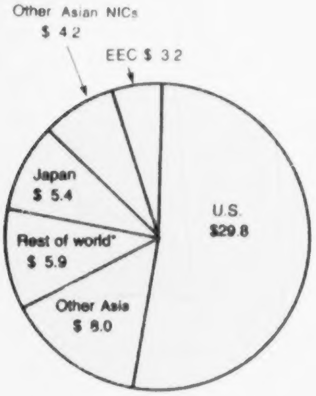
Not surprisingly, the Asian NICs now figure prominently in the debate on how best to reduce the U.S. trade deficit. These NICs have been pressured to revalue their currencies against the dollar, remove barriers to U.S. exports, and act on long-standing complaints of discrimination and unfair competition voiced by U.S. companies. Section 301 "unfair trade" cases have proliferated, especially against Korea. And some of their U.S. tariff privileges under the Generalized System of Preferences were recently removed.

Collectively, the four Asian NICs are running substantial trade and current account surpluses, not only with the United States but also with the EEC (see Table 1). But their individual positions differ (see Tables 2-5). Hong Kong and Singapore run trade surpluses with the United States, but these are fully offset by deficits with other countries. Taiwan and, to a lesser extent, Korea stand in marked contrast. Each has moved rapidly not only into large bilateral surplus with the United States but also into major overall trade and current account surpluses — gargantuan in the case of Taiwan. Further, despite their still-low market penetration, both countries are posting rising surpluses with Europe. Although still in chronic deficit with Japan, their share of Japan's manufactures imports is rising and they are competing aggressively and successfully against its exports in

Chart 1

Asian NICs

Export growth, 1980-86
$56.5 billion



*Includes Middle East

Table 1

Asian NICs

billions of dollars

	1980	1985	1986
Exports, FOB	76.4	114.0	131.2
United States	19.0	39.6	49.1
(% of total)	(24.9)	(34.7)	(37.4)
Japan	7.7	11.4	13.1
(% of total)	(10.1)	(10.0)	(10.0)
EEC	12.7	12.3	17.3
(% of total)	(16.6)	(10.8)	(13.2)
Imports, CIF	88.5	107.2	116.1
United States	15.6	18.0	18.8
(% of total)	(17.6)	(16.8)	(16.2)
Japan	20.7	24.5	30.9
(% of total)	(23.4)	(22.9)	(26.6)
EEC	8.8	11.5	14.1
(% of total)	(9.9)	(10.7)	(12.2)
Trade balance	—12.1	6.8	15.1
United States	3.4	21.6	30.3
Japan	—13.0	—13.1	—17.8
EEC	3.9	0.8	3.2
Other countries	—6.4	—2.5	—0.6
Current account balance	—9.0	12.2	22.3

Table 2

Hong Kong

billions of dollars

	1980	1985	Est. 1986
Exports, FOB	19.7	30.2	34.5
Imports, CIF	22.4	29.7	34.9
Trade balance	—2.7	0.5	—0.4
United States	2.5	6.5	8.1
Japan	—4.2	—5.6	—5.5
EEC	1.8	0.3	1.1
Other countries	—2.8	—0.7	—4.1
Current account balance	—1.3	4.2	2.4

Table 3

Korea

billions of dollars

	1980	1985	Est. 1986
Exports, FOB	17.5	30.3	35.8
Imports, CIF	22.3	31.1	32.3
Trade balance	—4.8	—0.9	3.5
United States	—0.3	4.3	7.5
Japan	—2.8	—3.0	—5.8
EEC	1.2	0.2	0.6
Other countries	—2.9	—2.4	1.2
Current account balance	—5.3	—0.9	4.7

third-country markets.

Responding to U.S. pressure, the Asian NICs recently have agreed to, and are making some progress in implementing, changes in their exchange rate, trade, and foreign investment policies. Since the beginning of 1986 Korea and Taiwan have allowed their currencies to strengthen against the dollar, but to a degree that leaves both currencies still sharply lower in real terms than at the beginning of the decade. Albeit reluctantly, the two countries are scaling back tariff and quantitative restrictions on a number of U.S. export products, and also are easing some obstacles to foreign investment in services. Further, Korea, Singapore, and Taiwan are legislating more effective protection and enforcement of foreign patents, trademarks, and copyrights.

These policy measures, though welcome, may limit the growth of the trade and current account surpluses of Taiwan and Korea but will not reduce their overall level. Still less will they put a major dent in their bilateral surpluses with the United States. Real progress will require that each country accept and implement a significant macroeconomic policy shift toward domestically generated expansion and pronounced currency appreciation, plus ambitious trade and financial liberalization. Taiwan and Korea should no longer postpone raising their living standards closer to those in industrial countries. Nor, if they truly prize efficiency and international success in the 1990s, should they cling to their existing, anachronistic trade and financial controls. In the near term, expansionary policies and currency revaluation would boost their domestic consumption and investment. If promptly initiated, these could pave the way for noticeable balance of payments adjustment by 1988. Inaction could carry a heavy price: like other countries in surplus, Taiwan and Korea cannot be exempt from contributing significantly to the needed reduction in the U.S. trade deficit — and must be seen to do so. Otherwise, the chances of holding protectionism at bay become increasingly doubtful. The Asian NICs have been obvious beneficiaries of the postwar global trading system. They have more at stake than most in helping avert its breakdown.

Growth through exports

The Asian NICs' growing visibility in international trade stems from their export-oriented economic development strategy. The strategy has brought them tangible benefits despite the ups and downs of the world economy. Real GDP growth has been substantially higher than in LDCs pursuing more inward-looking strategies, leading to higher per capita incomes (see Table 6).

Export-led growth strategies seek to channel investment and human resources into industries with export potential, rather than industries geared primarily to limited domestic markets. Pursuit of comparative advantage with keen cognizance of world market trends is intended to compel domestic efficiency, realize economies of scale, and force producers to innovate. Production for export at the lowest possible cost entails opening the door to imports of needed raw materials, capital goods, and component parts, plus gaining access to foreign technology and marketing skills. Export growth is therefore expected to be accompanied by import growth, with any undue imbalance to be resolved by the foreign exchange market.

The Asian NICs' adoption of export-led development did not follow inevitably from their relatively small populations or scarcity of natural resources. Only in the case of Hong

Kong did openness flow naturally from its historic role as a free-trade entrepot. The other countries began their postwar development along import-substituting lines, seeking to replace imports of consumer goods with domestic production behind protective barriers. But when the cost and limitations of import substitution became apparent in the early 1960s, these countries — unlike most other LDCs — made a conscious decision to switch tracks. Singapore moved rapidly toward free trade; Korea and Taiwan took the more cautious approach of dismantling specific obstacles and offsetting disincentives faced by export-oriented industries, but at the same time retained import restrictions for the benefit of established producers (especially farmers) geared to the local market.

By the early 1970s, Korea and Taiwan had developed a business environment in which production for export was at least as profitable as production for the domestic market. Exporters enjoyed automatic access to imported inputs duty-free and were exempt from indirect taxes. Similar treatment applied down the production chain to local suppliers of inputs for export industries. Access to working capital and pre-export financing was greatly enhanced. To compensate for remaining disincentives to export, subsidies were granted through income-tax benefits, credit preferences, and favorable utility rates totaling between 15% and 20% of value added in manufactures exports.

Foreign capital and technology played a major role in export-oriented industrialization, albeit in different ways. Hong Kong, Singapore, and Taiwan actively sought out multinational direct investment. Modern technology was acquired through licensing, technical agreements, and imports of the latest machines; also, many U.S. companies were enticed to contract out component parts or finished goods. By contrast, Korea relied mainly on foreign loan capital, maintaining restrictions on foreign ownership, profit remittances, and capital repatriation. The government encouraged local firms gradually to analyze and supplant the elements of imported technology — a policy that has put the country well ahead of the other Asian NICs in technological self-reliance.

In all four NICs, exchange rates gave clear signals, even though the countries chose different exchange and financial regimes. Hong Kong and Singapore maintained convertible currencies and allowed internationalization of their financial markets. Korea and Taiwan kept tight exchange controls and sheltered their domestic financial markets. Yet, all four managed their exchange rates in a manner that successfully underpinned domestic growth and export competitiveness. In 1979, when Korean inflationary pressures began to build and the nation's terms of trade deteriorated because of soaring oil and other commodity import prices, the won was quickly devalued to induce balance of payments adjustment. During 1981-84, not one of the Asian NICs' currencies matched the dollar's appreciation: market forces combined with government intervention to push their currencies lower and maintained their competitiveness on a trade-weighted, inflation-adjusted basis. In 1983 the Hong Kong dollar was marked down (see Chart 2) to accommodate the downward pressure provoked by uncertainty surrounding the return of sovereignty to China. In 1985, when Singapore found its economy sliding into recession as a domestic construction boom petered out, direct investment wilted, and its export markets crumbled in commodity-dependent neighbors, the previous

Table 4

Singapore

billions of dollars

	1980	*1985*	*Est. 1986*
Exports, FOB	19.4	22.8	22.0
Imports, CIF	24.0	26.3	25.3
Trade balance	—4.6	—3.5	—3.3
United States	—0.9	0.8	1.3
Japan	—2.7	—2.3	—3.1
EEC	—0.1	—0.5	—0.1
Other countries	—0.9	—1.5	—1.4
Current account balance	—1.5	—0.3	0.2

Table 5

Taiwan

billions of dollars

	1980	*1985*	*Est. 1986*
Exports, FOB	19.8	30.7	38.8
Imports, CIF	19.8	20.1	23.6
Trade balance	0.0	10.6	15.2
United States	2.1	10.0	13.4
Japan	—3.2	—2.1	—3.4
EEC	0.9	1.0	1.6
Other countries	0.2	1.7	3.6
Current account balance	—0.9	9.2	15.0

Table 6

Comparative economic growth and export performance

	Average annual percent change, 1976-86		
	Real GDP	*Export volume*	*Per capita GDP, 1986 in dollars*
Hong Kong	8.6	8.4	6620
Korea	7.2	13.5	2140
Singapore	6.5	8.3	6560
Taiwan	8.0	13.2	3230
Indonesia	5.5	3.0	450
Malaysia	5.9	6.1	1800
Philippines	2.4	6.2	540
Thailand	6.2	12.0	810
Argentina	0.4	9.0	2290
Brazil	3.4	12.8	1730
Chile	4.6	7.7*	1840
Mexico	3.7	6.6	1370

*1978-86.

Chart 2

Hong Kong dollar

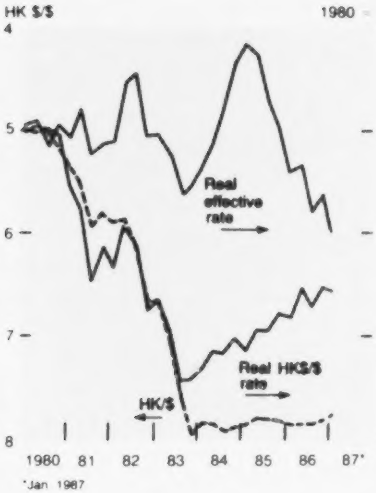
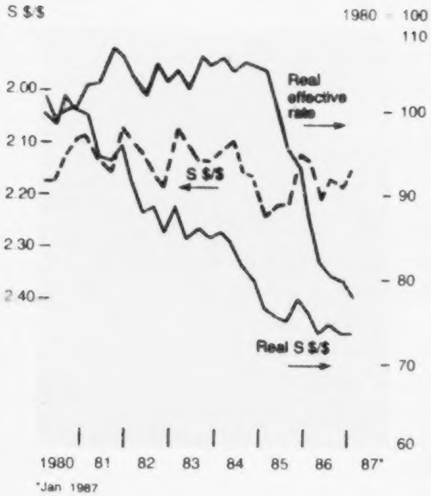


Chart 3

Singapore dollar



strong-currency policy was dropped in favor of substantial depreciation, especially in real effective terms (see Chart 3). This has bolstered both the economy and the balance of payments.

Public policy toward primary input markets, especially labor, assisted the export effort indirectly by providing education and vocational training, offering incentives to upgrade labor skills, and allowing wages to be determined largely through the interplay of supply and demand. Minimum wage legislation was shunned, employee benefits were seldom mandated, and barriers to labor mobility were not erected. As a result, firms chose labor-intensive production methods that put to work large numbers of urban unemployed and migrants from agriculture — plus the flood of refugees in the case of Hong Kong. They also found it advantageous to train workers to master more sophisticated production methods and increasingly modern products. In Singapore, the government went so far as to prod the private sector to raise wages substantially during 1979-81; this was to promote production of exports of higher added value which would require skill upgrading. In the Asian NICs generally, where labor unions had little influence, wage increases were granted competitively with an eye to productivity and profit gains. These practices helped keep inflation moderate, by and large (see Table 7). Productivity gains were remarkable (see Table 8), enabling wages in manufacturing to triple in dollar terms in Korea and Taiwan during the past decade; in real terms they have risen at annual average rates of 7.8% and 7.4%, respectively.

Finally, government macroeconomic policy generally responded to adverse changes in domestic or global economic circumstances. Governments spent heavily on basic infrastructure, such as ports, roads, industrial parks, and telecommunications facilitating export-oriented production and marketing. Still, major budgetary imbalances were avoided by and large even when, as in Korea and Taiwan, substantial tax revenues were devoted to national defense. The short-lived exception occurred in the late 1970s, when Korea embarked on an expensive program of heavy-industry investments in steel, shipbuilding, petrochemicals, and machinery. This required large-scale deficit financing at a time when, as mentioned, the economy faced adjustment to higher import costs and rising inflation.

The role of the public sector as an owner or backer of export-oriented industry also varied from country to country. In Singapore, for example, the government took major equity positions in companies and sought repeatedly to influence investment and other business decisions. To guide industrial development, the Korean government worked closely with about a dozen private-sector conglomerates. Taiwan's government has kept its ownership of commercial banks. The Hong Kong authorities, by contrast, followed laissez-faire policies. But in none of the countries were state-owned companies allowed to distort labor and other markets or burden public finances excessively.

Noninflationary fiscal and monetary policies, and rapid employment and output growth bred by the Asian NICs' export orientation, reinforced the strategy by boosting national savings. These provided funds for investment, enabling industrial capacity to expand still further. Positive real interest rates on financial savings instruments helped keep consumption growth down and savings up. Average national savings rates in Hong Kong, Singapore, and Taiwan came to exceed 30% of

Table 7

Consumer prices

percent change, December-December

	Annual averages			
	1975-79	*1980-84*	*1985*	*1986*
Hong Kong	6.7	10.7	2.6	3.9
Korea	16.8	10.5	3.2	1.3
Singapore	2.7	3.8	0.7	—1.3
Taiwan	6.1	6.5	—1.3	2.8

Table 8

Productivity and real wages in manufacturing

average annual percent change

	Productivity		*Real wages*	
	1975-1979	*1980-1985*	*1975-1979*	*1980-1985*
Hong Kong	7.9	7.2	5.3	1.7
Korea	6.2	5.6	12.9	4.0
Singapore	4.0	3.0	5.8	6.8*
Taiwan	11.5	4.0	10.8	4.6
Brazil	3.7**	3.2	10.4**	4.3
Chile	0.6	0.6	14.4	—0.2
Mexico	6.0	2.2	2.5	—6.1

*1980-84.
**1976-79.

GNP (see Table 9). Singapore's record-breaking savings rates owe much to a mandatory employee savings plan. National savings have held their own in both Hong Kong and Taiwan, despite considerable decline in their rates of capital formation in recent years. Neither country still needs to borrow abroad. To the contrary, Hong Kong has been exporting capital and Taiwan has amassed huge international reserves. For a decade after the first oil shock, Korea fell short of savings self-sufficiency, borrowing abroad to finance a significant portion of investment. In the past two years, however, Korea's savings have increased significantly.

International trade patterns

Exports of the four Asian NICs — almost entirely manufactures — have grown from $3 billion per annum in the mid-1960s to $131 billion last year. More than ever before, their main outlet now is the United States, where their sales last year represented between one-fourth (for Singapore) and one-half (for Taiwan) of total exports by the Asian NICs, up from a range of 13% to 34% in 1980 (see Table 10). Exports to nearby Japan, in contrast, ranged between 4.5% and 15% of total, much as they did at the beginning of the decade. Europe took in between 11% and 15% of the Asian NICs' exports last year, down from a range of 13% to 24% in 1980. Australia absorbed a scant 2%.

This evolution in the Asian NICs' export orientation has stemmed primarily from the differing growth rates of overall import demand in the principal foreign markets. The U.S. manufactures import market has been conspicuously fast-growing during the 1980s, with imports from all sources up by 135% in dollar value through 1986. Thanks in part to production and marketing arrangements with U.S. companies, the Asian NICs boosted their U.S. sales by 164%, pushing up their market share from 13% of the 1980 total to 14.6% last year (see Table 11). In the generally sluggish Japanese market, whose total manufactures imports rose only 23% in dollar terms over the six-year period, the Asian NICs' sales rose 34%. Their market share in Japan of 14% in 1980 climbed to 15.5% by 1986. Sales to Europe rose only 4% over the six-year period, below the slim growth of Europe's manufactures imports generally and leaving the Asian NICs' share at less than 7%.

Collectively, the Asian NICs' export composition has exhibited rapid change over the years, keeping pace with new trends and the world appetite for such increasingly sophisticated products as consumer electronics, data- and word-processing equipment, and telecommunications and electrical machinery. The Asian NICs are not all alike in this respect, however. Thus, while textiles, garments, and soft consumer goods account for about one-third of total Korean and Taiwanese exports, other Korean exports are more capital- and technology-intensive than those of Taiwan. Korea has been shifting aggressively to production of semiconductors, finished personal computers, office automation products, and VCRs; Taiwan has continued to produce less sophisticated component parts and, for instance, video monitors minimally adapted from existing TV production. Korea makes drilling platforms and is the world's second largest shipbuilder; Taiwan is known mainly for its pleasure craft. Korea also produces heavy machines such as power generators; Taiwan, in general, does not. Indeed, were it not for the assured markets Korea enjoys under the Multifiber Arrangement (MFA), the country probably

Table 9

Investment and savings

percent of GNP in current prices

	Gross investment*	Gross savings	
		National	Foreign**
Hong Kong			
1975-79 avg.	26.3	35.0	—8.7
1980-84 avg.	29.4	32.3	—2.9
1985	19.8	31.4	—11.6
1986	20.4	29.7	—9.3
Korea			
1975-79 avg.	30.0	25.4	4.6
1980-84 avg.	30.6	23.2	7.4
1985	31.2	28.1	3.1
1986	31.4	34.2	—2.8
Singapore			
1975-79 avg.	37.9	30.3	7.6
1980-84 avg.	46.8	38.7	8.1
1985	42.3	41.8	—0.5
1986	44.5	46.7	2.2
Taiwan			
1975-79 avg.	30.5	32.4	—1.9
1980-84 avg.	26.9	32.2	—5.3
1985	17.6	33.6	—16.0
1986	16.5	37.5	—21.0

*Gross capital formation.

**Measured by net exports plus net factor payments abroad in national income accounts data.

Table 10

Industrial-country shares in Asian NICs' trade

as percent of total exports and imports

	Exports		Imports	
	1980	1986*	1980	1986*
Hong Kong				
United States	26.2	31.9	11.8	8.5
Japan	4.6	4.5	23.0	20.2
EEC	23.6	15.3	12.5	12.0
Korea				
United States	26.3	39.7	21.9	20.8
Japan	17.4	14.9	26.3	34.3
EEC	16.5	13.5	7.6	13.2
Singapore				
United States	12.7	23.4	14.1	15.2
Japan	8.1	8.5	17.8	19.7
EEC	13.9	13.4	11.5	12.1
Taiwan				
United States	34.1	48.2	23.7	22.4
Japan	11.0	11.2	27.1	33.0
EEC	12.6	11.0	8.1	11.1

*January-September for Taiwan; January-October for Hong Kong and Korea; and January-November for Singapore.

no longer would be exporting as much as the $7 billion in clothing and textiles it sold abroad last year, more than half to the United States.

Lately, Korea has captured attention in its new role as automobile exporter — especially to North America. Korea's long-protected car assembly industry stagnated until recently because it could sell domestically less than 100,000 high-cost, outmoded autos per annum. Since 1983, however, Korea's investment and technical cooperation agreements with Japanese and U.S. companies have resulted in enlarged, modern facilities geared to the export of low-cost, style-conscious cars. Last year, auto production in Korea rose to 455,000, of which two-thirds were exported — 204,000 to the United States, 65,000 to Canada, and a mere 28 to Japan. This year, perhaps 860,000 autos will be produced, again largely for sale abroad, with 470,000 targeted for the U.S. market. To be sure, Korean carmakers currently rely on imported (mainly Japanese) parts to satisfy foreign quality, safety, and emission standards. Imports of car parts jumped from $170 million in 1984 to $320 million last year. But this cost, and the associated royalty and dividend payments, is small — even transitory, given Korea's emphasis on increasing local content — compared with the visible employment and hard-currency benefits of exports that earned the country $1.3 billion in 1986.

In contrast to their successful export drive, the Asian NICs' own appetite for imports has grown comparatively slowly. Their imports have risen only 31% over the 1980-86 period and their purchases remain concentrated in Japan, which supplies between one-fifth and one-third of their total imports. Japan's share has not changed much since 1980. The U.S. share in their imports also has remained steady at around 17%. Still, the asymmetry between the Asian NICs' export-market and import-source orientation has led to hefty bilateral trade imbalances. In 1980, the Asian NICs' bilateral surplus with the United States approached $3½ billion, while their deficit with Japan was $13 billion (see Table 1). By 1986 these imbalances had widened to a surplus of more than $30 billion with the United States and a deficit of nearly $18 billion with Japan.

The worsening of bilateral imbalances owes much to factors beyond the Asian NICs' control: faster growth of U.S. demand relative to Japan, loss of U.S. competitiveness during the years of dollar strength, and much readier access to the U.S. market than to the barrier-ridden Japanese market. The past two years' appreciation of the yen has the potential to narrow the bilateral imbalances by discouraging the Asian NICs' imports from Japan. The weaker dollar, by the same token, could encourage the Asian NICs to buy more from the United States — but it also could result in still higher exports to the United States if they succeed in displacing manufactures imports presently sourced from Japan. Korea, which has consciously developed industrial capabilities paralleling those of Japan, is well positioned to take U.S. market share away from Japan.

In their overall trade balances, as noted earlier, Hong Kong and Singapore diverge sharply from Taiwan and Korea. Over the last three years, Hong Kong has maintained approximate balance in its merchandise trade and Singapore has posted a deficit. Quite differently, Taiwan and Korea have been recording growing, and by now enormous, surpluses. Taiwan's reached $15.2 billion in 1986, the equivalent of about 21% of GNP. Since late 1985, Korea has run in surplus for the first time in its modern history, to the tune of $3.5

Table 11

Industrial-country imports of manufactures

billions of dollars

	1980	*1986**	*% change*
United States			
Total	131.5	310.6	136
From Asian NICs	17.2	45.4	164
(% of total)	(13.1)	(14.6)	
Japan			
Total	40.1	49.2	23
From Asian NICs	5.7	7.6	34
(% of total)	(14.2)	(15.5)	
*EEC***			
Total	178.5	195.3	9
From Asian NICs	12.6	13.1	4
(% of total)	(7.1)	(6.7)	

*January-November at annual rate for the United States and Japan; January-June at annual rate for EEC.
**Excluding intra-EEC trade.

Table 12

Trade balances, FOB/CIF

billions of dollars

	1985	*1986*	*Proj. 1987*
Hong Kong	0.5	—0.4	—1.5
Korea	—0.9	3.5	6.5
Singapore	—3.5	—3.3	—4.0
Taiwan	10.6	15.6	18.5

billion, or almost 4% of GNP, in 1986. The surpluses of both Taiwan and Korea will likely swell further this year — perhaps to $18.5 billion and $6.5 billion, respectively (see Table 12).

Policy inertia in Taiwan and Korea

The large overall surpluses of Taiwan and Korea, besides their gross imbalances with the United States, are the logical consequence of the policies each has pursued over an extended period. Curbing these surpluses therefore entails reorientation of those policies, raising complex issues of economic management with inescapable political overtones. Coming to grips with these issues will not be easy. Of its own accord, neither country is likely to move swiftly to correct its external surplus.

Taiwan's surpluses emerged at the beginning of the 1980s and provided a sense of political and economic security amid growing diplomatic isolation and the challenge of China's opening to the West. As the years went by and the surpluses mounted, consideration was given to a policy stance more supportive of domestically generated growth. It never came to pass, however, because of opposition from export industries and a political establishment that is very conservative. Only belatedly, and mainly in response to growing U.S. discontent over the bilateral imbalance, has the Taiwanese government come to recognize that the huge external payments surpluses have to be addressed.

These surpluses stem from a prolonged and by now severe slump in both public and private investment. Remarkably, this has not been accompanied by a fall in national savings. In 1980, a peak year for capital formation, spending for plant and equipment totaled 30% of GNP; by last year, investment outlays were down almost half to 17% of GNP. Meanwhile, national savings averaged over 32% of GNP throughout 1980-86.

The drop in Taiwanese private investment suggests the existence of obstacles to further industrialization. One is the diminutive size of the typical Taiwanese firm: the overwhelming majority are thinly capitalized, have fewer than fifty employees, and record sales of less than $1.5 million annually. Although very successful at labor-intensive production, these small, family-run firms have had difficulty in adopting modern management practices, undertaking sizable and riskier investments, or incorporating more complex technologies. The introduction of sophisticated technology from abroad has been discouraged by inadequate intellectual-property protection. To some extent, investment by foreign firms has helped upgrade local industry, but multinational companies have been drawn to Taiwan mainly for its inexpensive, high quality labor.

Antiquated local financial markets pose another obstacle, failing to finance either maturing smaller companies or venture capitalists. The banking system is virtually entirely nationalized and, though awash with funds, is not encouraged to deliver competitively priced funding to any but the largest, most cash-rich companies. A tradition of short-term lending tied to physical collateral discourages lending to business except for low-risk investments. This tradition penalizes new borrowers by pushing them into an expensive "gray" financial market. Meanwhile, foreign-owned banks have had poor loan-loss experience in Taiwan and are now retrenching rather than competing aggressively with local institutions.

In fiscal policy, Taiwan's central government budget moved from a

Table 13

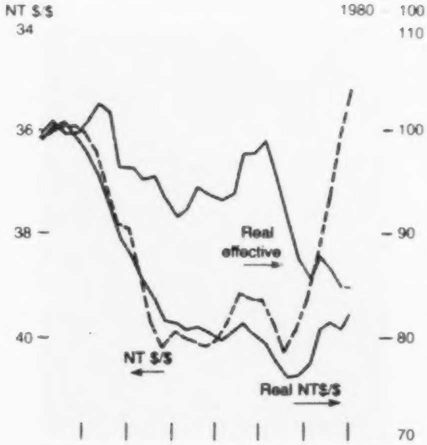
Budget balances

central government, as percent of GNP

	Average 1980-82	Average 1983-85	Est. 1986
Hong Kong	2.5	—0.9	0.7
Korea	—1.8	0.6	1.4
Singapore	2.1	3.1	2.1
Taiwan	—0.6	0.4	—1.3

Chart 4

New Taiwan dollar



*Jan. 1987

small deficit to a small surplus in early 1984 and remained in the black until last year, when a slight deficit reemerged (see Table 13). Investment by the government and state-owned companies, about half of fixed capital formation in 1980, was slowed and then cut sharply in 1984-85 despite the consequences for aggregate demand. Public investment finally started to rise in mid-1986, and private investment also began to recover, but it is too soon to tell whether either turnaround will prove sizable or enduring. On the monetary side, M2 has rocketed from the equivalent of 60% of GNP in 1980 to 110% at present. The associated drastic fall in the velocity of circulation of the money supply has effectively thwarted the classical adjustment mechanism for a balance of payments surplus: that mechanism would translate excess foreign exchange into increased domestic liquidity, lower interest rates, higher consumption and domestic investment, private capital outflows, and greater import demand.

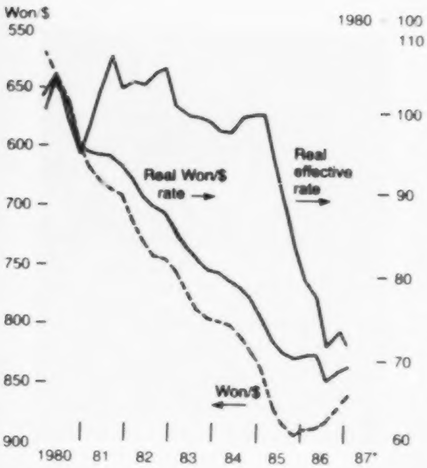
Taiwan's exchange controls and restrictions on imports for local consumption have prevented such adjustments. Individuals and companies are allowed to place only a token of their newfound wealth in overseas financial or nonfinancial assets, and then only through certain intermediaries and for approved purposes. Even remittances to relatives and funds for travel abroad are strictly limited. Meanwhile, import tariffs on goods for domestic consumption are inordinately high. Duties range from 23% to 75% and their differentiation excludes many products. In addition, a 4% harbor tax is assessed against imports and special levies are applied to a number of products (mostly agricultural). Government revenues from customs and harbor duties far exceed income tax collections — a reflection of Taiwan's antiquated tax system.

Yet another reason why Taiwan remains in large and growing external surplus is that the exchange rate for the New Taiwan dollar is not allowed to reflect the excess supply of foreign currency. The Central Bank of China sets the exchange rate and is the buyer of last resort. The NT dollar was devalued from NT 36/$ in 1980 to NT 40/$ in late 1982 and was kept there until late 1985. By that time, official reserves had risen to $22 billion, up tenfold in just five years. Since then, the NT dollar has been allowed to appreciate to NT 35/$ — and official reserves have now reached $50 billion. Because the modest appreciation against the U.S. dollar over the past year has not offset the currency's depreciation relative to the yen and other trading-partner currencies, and because the country has had near-zero inflation, the currency today is 15% more competitive on a real effective basis than it was at the beginning of the decade (see Chart 4); in bilateral trade with the United States, Taiwan is 20% more competitive than in 1980. Not surprisingly, speculation that the NT dollar has nowhere to go but up is making matters worse: it increases the excess demand for the currency as exporters hurry to convert their earnings and importers try to delay payments abroad.

In Korea, the advent of a substantial external surplus — $4.7 billion on current account last year — likewise has been welcomed by the government. It crowns a five-year effort to end the series of current account deficits and heavy external debt accumulation incurred around the turn of this decade. The government is proud that this successful effort has enabled it to begin amortizing foreign debt without recourse to new borrowing, thus starting to reduce the level of foreign debt. Korean data for the first ten months of 1986

Chart 5

Korean won



*Jan. 1987

suggest that the debt level declined by over $2 billion last year, before exchange valuation changes. A goal of further debt reduction is enshrined in the recently released five-year Economic Plan: Korea is projected to continue current account surpluses of the present scale through 1991, both to repay foreign debt and build up foreign assets. The plan targets a $12 billion reduction in gross foreign debt by early 1992, and a cut in the net debt — gross debt less official assets — of $19 billion. This would lower the ratio of gross debt to exports of goods and services to about 70% by 1991, sharply below the present 139%.

The improvement in Korea's external accounts has two main sources. First, lower oil prices and reduced interest payments on the foreign debt contributed $2½ billion last year, or two-fifths of the improvement on current account. Second, national savings have increased more than domestic investment — and volume growth in imports has lagged that in exports — not least because of the government's fiscal policy. The central government's budget, which was virtually balanced in 1985, posted a surplus of approximately 1½% of GNP in 1986. The authorities are comfortable with this fiscal outcome and plan to repeat it this year.

As in Taiwan, Korea's tradition of trade and capital movement restrictions inhibits adjustment to the foreign-currency surplus. Besides the features of the trade policy that continue to favor export-oriented industry, Korea's rules on imports for domestic consumption are needlessly restrictive. A 1983 tariff reform is cutting rates on about two-fifths of total imports from an average of around 23% to 17% by 1988. In addition, many imports subject to license now receive automatic approval. But these are modest and snail-paced steps. Moreover, Korea's tariffs on agricultural commodities and processed foods are as high as 40% to 60%, and beef, citrus fruit, and seafood imports remain subject to bans or quotas. A host of manufactured goods — from competing foreign auto parts to machine tools and personal computers — are kept out through burdensome licensing and administrative requirements. Local producers are further encouraged through so-called localization programs to increase the domestic content of leading exports: currently, for example, preferential credit and other assistance is provided to firms that switch from Japanese to Korean-made inputs in autos, trucks, ships, and electronics.

Exchange controls prevent residents' diversification away from won-denominated financial assets and impede foreign acquisition of won instruments. Korean residents are not permitted to open bank accounts or buy securities or real estate abroad. All dealings in foreign exchange are restricted to approved business activities. Outward direct investment is by permission only and portfolio investment by institutions is effectively prohibited. Restrictions on capital inflows are being cautiously relaxed, yielding some increase in direct investment, but do not yet allow direct foreign purchases of Korean equity or won-denominated securities.

Korea maintains this tough exchange control regime to support its industrial policies generally and to further its strict management of the won exchange rate specifically. Exchange rate policy in 1985 and through mid-1986 pushed the Korean won to its most competitive level in recent history (see Chart 5). During 1985, even as the dollar was moving substantially lower, the won was devalued from W 830/$ to W 890/$ — despite claims that it was being moved in accordance with a basket of currencies, which should have led to an appreciation against the dollar. At the time, inflation in Korea was as low as in the United States and other major trading partners, so there was no need to compensate for adverse inflation differentials. Even during first-half 1986 as the dollar continued to slide, the won was kept at around W 887/$, boosting Korean competitiveness still further. Only in the past seven months has the Bank of Korea allowed the won to appreciate — albeit very slowly — to a current quote of around W 855/$.

On a real effective basis, however, the won has a very long way to go before it reverses the earlier competitiveness gain — particularly in the Japanese market or third markets in which it competes with Japan — given the past two years' 75% won depreciation relative to the yen. Indeed, the won presently stands some 26% below its 1980 value in inflation-adjusted terms vis-à-vis its trading partners generally; in relation to the dollar, the won is down 28% in real terms. Prolongation of Korea's restrictive fiscal stance and undervalued exchange rate would sustain sizable overall trade and current account surpluses for the foreseeable future, most particularly with the United States. As the full effects of the low-valued won become evident, especially in competition with Japanese and European producers, Korea's overall surpluses may well grow in 1987 beyond not only last year's outcome but also the government's projections.

Recommendations

The strategy of export-led economic growth has transformed the Asian NICs. It has turned backward, agrarian economies such as Korea and Taiwan and former colonial outposts such as Hong Kong and Singapore into modern, dynamic societies with far lower unemployment, and higher, much better-distributed incomes than most resource-rich LDCs. Their successful record offers valuable lessons, especially to debt-burdened countries in Latin America, Africa, and elsewhere in Asia.

The export success of the Asian NICs has relied heavily on easy entry to a rapidly growing U.S. market. All four countries have come to mark up highly visible and still-rising surpluses in their U.S. bilateral trade. Besides the imbalance in their key U.S. relationships, Taiwan and, lately, Korea record outsize trade and current account surpluses with their trading partners as a whole — in Taiwan's case of long-standing and huge proportions. Yet both countries manage their economies much as they did when external deficits were the rule. Basic changes now are overdue, for there is a manifest and growing incompatibility between their established implementation of export-oriented development and their repressed financial markets, restricted import regimes, and heavily managed exchange rates.

Countries in surplus — witness Japan and Germany today — always are slow and reluctant to adjust. Building up a mountain of foreign assets, as Taiwan continues to do, or extinguishing external liabilities, as both Taiwan and Korea are doing, is much less of a challenge than facing up to the structural changes and policy corrections needed to ensure a healthy balance in international trade. Chronic, excessive surpluses serve no productive national purpose. On the contrary, they needlessly postpone improvement of domestic living standards and, by aggravating international trade frictions, jeopardize continued access to foreign markets. Specifically, these countries would be well advised — in their own self-interest — to adopt fiscal policies that expand domestic demand; allow significant currency appreciation to boost purchasing power and actual living standards; move rapidly toward import regimes with minimal restrictions and uniformly low tariffs of 10% or less; lift exchange controls that block private-sector lending and investment overseas; and free their banking systems and capital markets from crippling regulation. In this light, the token currency appreciation and liberalizing measures announced so far by the governments of Taiwan and Korea fall well short of what the circumstances warrant.

Policy reforms in Taiwan and Korea also would advance their industrial development. To this end, industries that rely on low-skilled, cheap labor need to be phased down in both countries. Taiwan has yet to come to terms with its need to upgrade its industrial base. Korea has made a start on transition to more skill-dependent, higher-value-added manufacturing; unfortunately, its government-orchestrated localization program seeks to promote the industries of its future without weeding out those of its past. Currency revaluation, combined with thoroughgoing trade liberalization, would provide a superior and even-handed approach to identifying activities ripe for development or retrenchment.

Such industrial evolution in Taiwan and Korea would open major opportunities for the poorer countries of Asia and elsewhere. Some, such as Thailand and Malaysia, already evidence export aptitude and have immediate potential to step up manufactures exports. Others, such as Indonesia and the Philippines, possess abundant, underemployed work forces and have to build export capability in manufactures. As they realize such capability, their exports should prosper and their existing import constraints will be relaxed.

The industrial countries have it within their power to encourage rational restructuring in the Asian NICs, specifically by reforming their own perverse trade policies, of which the Multifiber Arrangement (MFA) is an outstanding example. Under the MFA (and other "voluntary" agreements), the major importing countries operate bilateral quotas of Byzantine complexity. The domestic consumer costs are huge. The sole benefits go to established producers in industrial countries, the Asian NICs — whose 1986 exports of clothing and textiles exceeded $20 billion — and those other LDCs that first evolved an export presence. Newly emerging producers are thereby largely excluded from the world export market. The MFA further serves to buttress the textile industry as a net exporter in Japan, where its survival at its present size is particularly hard to rationalize on efficiency grounds. It is unrealistic to suppose that the United States and Europe will abandon textile import control by quota. But there appears little reason to maintain the present inceasingly unworkable bilateral arrangements, when nondiscriminatory global quotas (preferably sold by open auction) can protect domestic industry at lower cost to the world economy.

Japan has a vital role to play in the industrial and balance of payments adjustment of Taiwan and Korea. Between 1980 and 1986, Japan absorbed less than one-tenth the total increase in the four Asian NICs' exports, whereas the United States absorbed over half. The problem is not that the Asian NICs have failed to secure a foothold in the Japanese manufactures import market — with the egregious exception of automobiles — but rather that Japan's imports of manufactures from whatever source grew very little while the yen was undervalued. Now that the yen has strengthened, Japan's imports should rise more rapidly. However, a constructive result — whether for the Asian NICs or the United States — is not assured unless Japan's domestic policies bolster domestic demand more forcefully than hitherto and steps also are taken to undo administrative and other obstacles to imports of finished goods and high-value manufactures. In the European market, whose growth also has been sluggish and protectionism pervasive (as too in Australia), the Asian NICs barely achieve a foehold at present. The prescription for appropriate demand and trade policies in Europe is much the same as for Japan.

The United States should speak out plainly on the need for Taiwan and Korea to change their policies, emphasizing that a visible approximation to reciprocity in commercial relationships among the three nations is a U.S. political imperative. As prominent U.S. trade partners, both Taiwan and Korea are expected to help shoulder responsibility for the maintenance of a liberal trading order, and to make a significant contribution — probably on the order of $15 billion — to U.S. trade deficit correction. Hitherto, negotiations between the United States and the Asian NICs have focused mainly on agricultural trade and intellectual property protection. Important as these topics are for the interests directly concerned, it should be realized that the scale of trade potentially affected is miniscule in relation to the overall U.S. trade imbalance with these and other countries. As President Reagan's Council of Economic Advisers recently noted, the lion's share of U.S. trade deficit correction must come through massive improvement in U.S. manufactures trade. Negotiations with trade partners, including the Asian NICs, therefore should give pride of place to removing obstacles to U.S. manufactures exports and changing policies that skew foreign manufactures exports to the U.S. market. On both counts, Taiwan and Korea have far to go in liberalizing their economies along the lines previously identified. Forthright reforms on their part, together with constructive policy changes in Japan, Europe, and other industrial countries, will enable the United States to reduce its trade deficit without sacrificing economic growth or sheltering its domestic market — the very worst outcomes for the Asian NICs and the world at large.

Statistical appendix

For key to data in tables see pages 22 and 23.

Effective exchange rates — industrial countries, 14

Real effective exchange rates — developing countries, 15

International banking market size, 15

International bond issues and bank credits, 16

Eurocurrency deposit rates, 17

International bond yields, 17

Central bank discount rates, 18

Day-to-day money rates, 18

Treasury bill rates, 19

Representative money market rates, 19

Commercial bank deposit rates, 20

Domestic government bond yields, 20

Commercial bank lending rates to prime borrowers, 21

Domestic corporate bond yields, 21

Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates — industrial countries

Index numbers, 1980-82 average=100.

Nominal against 15 other industrial-country currencies

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
1981	99.5	100.2	105.8	104.0	100.4	97.2	98.8	102.1	98.9	101.8	97.1	99.4	98.3	99.2	100.1	103.3
1982	109.8	99.4	98.6	100.1	93.1	102.8	92.8	98.1	101.7	92.3	102.7	94.1	106.3	95.7	101.7	92.8
1983	114.2	100.8	107.8	92.0	87.3	107.6	90.3	91.6	103.6	90.0	105.0	78.4	111.5	96.4	99.4	82.2
1984	122.4	97.3	113.0	94.2	84.4	107.4	86.7	88.1	103.6	88.9	104.0	77.4	110.5	93.9	97.8	84.3
1985	127.1	92.8	115.8	76.3	85.4	107.8	82.1	86.2	104.2	89.5	104.0	75.6	109.5	95.0	95.6	83.9
1986	106.0	87.6	150.1	61.4	87.4	116.1	82.9	80.7	107.8	92.9	110.3	73.4	118.1	99.7	89.3	81.6
1986																
August	102.3	87.0	161.7	54.2	86.4	117.6	83.7	78.8	108.1	93.4	111.7	74.0	122.7	100.4	86.7	81.0
September	102.2	87.1	160.8	55.1	86.5	118.3	83.9	77.5	108.5	93.8	112.0	73.7	122.7	100.5	86.6	81.0
October	102.1	87.0	158.4	56.8	87.3	119.4	84.4	74.4	109.0	94.3	112.9	73.4	122.3	102.1	85.9	80.8
November	103.5	87.4	152.7	58.1	87.4	119.5	84.4	75.1	109.1	94.2	112.9	72.8	120.4	102.1	84.7	80.8
December	102.5	87.6	152.4	59.0	87.5	120.2	84.6	75.0	109.4	94.5	113.3	72.6	120.2	102.5	83.9	80.5
1987																
January	98.6	88.2	156.4	57.3	87.7	122.9	84.2	75.1	110.6	96.6	114.9	72.0	122.0	104.6	83.8	80.4
December 19	103.1	87.8	151.8	59.8	87.5	119.8	84.4	75.3	109.4	94.3	113.0	72.6	119.2	102.3	84.0	80.7
26	102.0	87.6	152.1	59.6	87.4	120.4	84.7	75.1	109.5	94.6	113.4	72.7	120.6	102.7	83.7	80.4
January 2	100.8	87.2	154.0	58.5	87.2	120.9	84.7	75.5	109.7	94.8	113.8	72.8	120.9	103.2	83.8	80.3
9	100.5	87.7	154.2	58.7	87.0	121.4	84.2	75.2	109.9	95.1	114.2	72.6	120.8	103.3	83.8	80.2
16	98.5	87.9	156.7	56.6	87.3	122.3	83.8	74.6	110.5	96.2	114.9	72.3	122.0	103.8	83.8	79.9
23	97.5	88.1	157.4	56.8	87.6	122.6	83.9	74.9	110.7	96.1	115.2	71.3	122.1	104.3	83.7	79.8
30	96.6	89.0	157.3	56.5	87.9	123.0	84.1	74.5	110.8	96.5	115.4	71.0	122.3	104.7	84.0	79.7

Real against 15 other industrial-country currencies

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
1981	100.8	99.5	104.8	102.6	100.0	98.9	98.9	102.5	99.4	101.4	97.1	99.6	98.7	98.9	101.3	101.9
1982	109.3	100.6	92.4	105.7	97.3	99.9	96.5	98.8	101.2	91.9	100.5	99.0	103.0	97.9	103.2	95.6
1983	112.7	102.6	96.8	101.9	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.9	105.1	100.4	102.0	90.7
1984	119.6	100.2	97.8	106.4	97.0	98.0	101.8	90.2	103.0	85.9	97.8	91.1	100.1	99.2	100.5	96.0
1985	122.5	96.5	96.6	89.5	100.5	96.7	100.2	92.8	103.3	85.3	96.8	92.5	98.0	101.2	99.5	96.9
1986	101.8	93.4	119.3	78.4	102.6	103.6	103.0	87.5	106.7	84.7	101.5	94.8	105.8	107.7	97.1	95.9
1986																
August	98.0	93.2	127.2	70.7	102.3	105.2	104.0	85.8	108.8	84.2	101.4	95.6	109.9	108.4	94.9	95.8
September	97.5	93.5	126.7	71.4	102.4	105.2	104.2	84.4	107.0	84.4	102.7	96.9	110.2	108.8	96.6	95.8
October	97.8	93.7	124.3	73.9	103.5	105.9	105.1	80.9	107.3	84.5	104.4	96.5	110.2	110.7	96.6	94.7
November	99.2	93.9	119.5	76.2	102.8	105.9	105.3	81.8	107.9	84.7	104.3	95.4	108.4	110.9	95.5	95.3
December	98.3	94.2	118.9	78.4	102.3	106.6	105.8	82.2	108.6	84.5	104.3	96.2	108.6	111.5	94.4	95.1
1987																
January	94.2	95.9	121.4	77.0	102.6	109.1	105.8	82.7	110.2	86.2	104.5	96.6	109.4	113.0	94.5	95.8

Real against 18 other industrial-country and 22 LDC currencies

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
1981	99.8	99.4	104.7	102.5	99.5	96.2	98.2	102.0	98.9	100.9	96.6	98.9	98.0	98.7	101.3	101.6
1982	109.6	101.8	94.0	105.2	96.9	99.4	98.1	96.5	101.1	91.6	99.5	98.9	102.6	97.7	103.0	95.4
1983	114.9	104.6	100.4	102.1	94.4	100.6	100.8	93.0	102.1	88.2	99.5	89.2	105.1	100.3	101.9	90.9
1984	120.8	102.7	102.4	106.7	96.4	96.8	101.0	89.7	102.7	85.0	95.9	91.3	99.8	99.0	100.5	95.7
1985	124.0	99.2	101.6	90.1	100.0	95.8	99.8	92.3	102.9	84.5	94.8	93.2	97.8	101.2	99.6	96.8
1986	107.3	94.6	124.2	80.5	103.3	104.7	104.4	88.3	107.6	85.2	101.4	97.4	107.7	108.2	97.9	96.6
1986																
August	104.1	94.0	131.8	72.9	103.0	106.6	105.6	86.8	107.9	84.9	101.5	98.3	112.2	109.0	95.9	96.6
September	104.0	94.3	131.9	74.0	103.3	106.9	106.0	85.6	108.2	85.2	103.1	99.8	112.7	109.5	97.6	96.8
October	104.3	94.6	129.7	76.2	104.6	107.8	107.1	82.2	108.7	85.4	105.0	99.6	113.0	111.4	97.5	95.7
November	105.4	94.9	124.6	78.4	103.9	107.7	107.3	83.1	109.3	85.6	104.9	98.4	111.1	111.6	96.4	96.3
December	105.1	95.3	124.3	80.6	103.5	108.7	108.0	83.5	110.1	85.5	105.0	99.6	111.5	112.2	95.3	96.1
1987																
January	101.9	98.8	126.6	79.4	104.1	111.6	108.6	84.2	112.0	87.3	105.7	100.5	112.8	113.8	95.6	97.0

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1981	107.8	103.3	108.3	100.6	114.4	103.3	99.7	98.9	99.8	100.3	99.4	101.2	102.0	101.8	99.3	104.7
1982	77.0	112.9	97.3	105.9	82.9	104.6	110.2	101.6	111.7	101.9	105.6	106.7	100.8	96.6	108.6	96.0
1983	71.5	86.2	89.2	104.9	78.8	98.4	117.2	95.8	96.2	97.6	113.9	96.1	101.8	94.5	120.8	93.5
1984	80.1	85.7	90.1	99.6	91.8	105.8	86.0	100.2	96.8	96.5	119.7	107.9	102.4	97.1	119.5	91.1
1985	71.2	85.1	79.7	85.7	90.5	96.3	93.0	104.2	95.8	89.2	116.3	114.6	95.7	94.6	106.8	91.5
1986	61.0	74.1	68.7	67.6	65.2	101.8	86.8	93.9	71.2	73.9	94.2	90.0	80.2	87.4	100.9	71.2
1986																
February	61.7	81.7	67.9	71.2	70.2	91.0	89.7	95.0	82.6	78.0	102.9	94.1	84.8	86.7	100.2	80.3
March	62.0	75.2	67.1	70.7	68.3	90.5	89.1	94.5	80.5	76.9	97.6	91.4	82.7	86.8	99.0	74.4
April	61.8	73.6	68.5	70.1	66.7	93.9	89.7	95.5	80.1	76.6	94.6	89.9	80.9	86.7	100.7	71.9
May	60.8	72.8	68.5	68.1	65.7	95.8	89.8	95.2	78.9	75.1	92.9	88.4	79.1	88.4	101.5	71.4
June	61.3	73.0	70.3	67.7	66.6	99.2	90.2	96.2	79.1	75.4	93.1	87.4	79.3	89.5	101.9	70.9
July	61.5	72.1	69.5	66.7	65.0	101.9	89.7	91.6	76.9	70.7	91.2	87.8	78.6	89.0	101.0	69.8
August	60.9	72.1	67.9	65.8	62.3	104.7	89.5	90.4	75.4	69.8	90.7	85.8	78.5	88.9	99.5	67.8
September	58.7	72.3	67.5	65.4	60.6	108.3	89.5	92.5	60.9	70.4	90.3	86.5	78.1	84.9	100.3	67.4
October	58.7	71.6	67.6	64.7	60.5	111.9	89.4	92.0	54.6	70.6	89.7	88.2	77.7	84.7	100.7	67.7
November	59.4	72.9	68.1	64.8	60.7	116.8	90.7	94.1	55.5	71.9	91.0	88.3	79.0	87.2	102.0	65.8
December	59.2	70.9	68.7	64.3	61.1	122.4	59.8	93.5	55.3	72.2	90.8	88.6	76.4	86.6	102.3	64.8
1987																
January	51.7	65.2	67.7	65.3	57.9	105.1	58.6	89.5	54.6	70.4	88.9	88.0	75.7	86.3	94.8	65.3

International banking market size

at end of period, billions of dollars

	1981	*1982*	*1983*	*1984*	*1985*			*1986*	
					Jun	*Sep*	*Dec*	*Mar*	*Jun*
Gross claims									
Eurocurrencies, on residents and nonresidents	**1 929**	**2 146**	**2 253**	**2 359**	**2 459**	**2 622**	**2 833**	**2 947**	875
On nonbanks	557	634	665	694	735	761	822	854	2 165
On banks	1 372	1 512	1 588	1 665	1 724	1 861	2 011	2 093	**3 040**
In dollars	1 504	1 694	1 797	1 894	1 924	2 002	2 101	2 138	2 166
In other currencies	425	452	456	465	535	620	732	809	874
Domestic currencies, on nonresidents	**365**	**398**	**398**	**402**	**422**	**451**	**506**	**535**	**578**
On nonbanks	128	132	136	142	150	165	187	186	201
On banks	237	266	262	260	272	286	319	349	377
In dollars	188	211	217	215	209	205	215	203	210
In other currencies	177	187	181	187	213	246	291	332	368
Total	**2 294**	**2 544**	**2 651**	**2 761**	**2 881**	**3 073**	**3 339**	**3 482**	**3 618**
On nonbanks	685	766	801	836	885	926	1 009	1 040	1 076
On banks	1 609	1 778	850	1 925	1 996	2 147	2 330	2 442	2 542
In dollars	1 692	1 905	2 014	2 109	2 133	2 207	2 316	2 341	2 376
In other currencies	602	639	637	652	748	866	1 023	1 141	1 242
Gross liabilities									
Eurocurrencies, to residents and nonresidents	**1 954**	**2 168**	**2 278**	**2 386**	**2 471**	**2 641**	**2 846**	**2 964**	**3 059**
To nonbanks	372	432	479	497	520	546	585	610	632
To official monetary institutions	112	91	88	96	106	109	112	106	109
To other banks	1 470	1 645	1 711	1 793	1 845	1 986	2 149	2 248	2 318
In dollars	1 539	1 741	1 846	1 950	1 969	2 045	2 147	2 166	2 204
In other currencies	415	427	432	436	502	596	699	798	855
Domestic currencies, to nonresidents	**263**	**250**	**260**	**280**	**310**	**341**	**377**	**394**	**418**
To nonbanks	74	70	73	80	89	103	114	121	121
To banks	189	180	187	200	221	238	263	273	297
In dollars	126	116	135	146	154	159	169	166	171
In other currencies	137	134	125	134	156	182	208	228	247
Total	**2 217**	**2 418**	**2 538**	**2 666**	**2 781**	**2 982**	**3 223**	**3 358**	**3 477**
To nonbanks	446	502	552	577	609	649	695	731	753
To banks and official institutions	1 771	1 916	1 986	2 089	2 172	2 333	2 529	2 627	2 724
In dollars	1 665	1 857	1 981	2 096	2 123	2 204	2 316	2 332	2 375
In other currencies	552	561	557	570	658	778	907	1 026	1 102
Net market size	**1 155**	**1 285**	**1 382**	**1 430**	**1 497**	**1 572**	**1 676**	**1 735**	**1 800**

International bond issues and bank credits

millions of dollars

	1983	1984	1985	1986			Jan-Dec	
				Oct	Nov	Dec	1986	1985
By country of borrower								
Industrial countries	**102 652**	**177 077**	**226 711**	**23 052**	**22 418**	**21 096**	**270 231**	**226 710**
Australia	5 737	5 816	14 407	3 111	2 094	774	20 106	14 407
Austria	1 290	2 254	2 435	199	178	121	3 581	2 435
Belgium	2 168	1 847	3 269	651	7	178	4 952	3 269
Canada	8 571	13 124	17 184	1 097	2 271	4 425	21 633	17 184
Denmark	3 941	4 825	3 589	1 145	1 263	1 526	9 633	3 589
Finland	1 271	1 713	1 846	400	260	422	3 445	1 846
France	8 626	11 298	18 773	2 195	1 688	1 864	19 701	18 773
Germany	3 197	2 165	3 452	1 101	1 412	324	11 927	3 452
Greece	1 291	1 551	1 587	43	20	143	1 317	1 587
Ireland	1 869	1 377	1 881	541	331	—	4 179	1 881
Italy	4 876	6 933	11 033	505	706	704	12 962	11 033
Japan	14 428	17 526	21 269	4 072	3 295	3 217	35 506	21 269
Netherlands	1 213	1 973	2 299	317	246	335	3 579	2 299
New Zealand	802	3 208	2 707	935	945	1 010	8 078	2 707
Norway	1 969	1 324	3 905	752	848	414	6 644	3 906
Portugal	1 030	1 796	2 382	237	25	31	2 433	2 382
South Africa	1 300	1 422	825	—	—	—	—	825
Spain	4 977	4 931	3 913	644	860	70	7 015	3 913
Sweden	7 144	11 256	9 890	654	366	120	8 020	9 890
United Kingdom	2 726	8 899	25 424	652	960	1 010	24 295	25 424
United States	20 276	65 054	69 193	3 610	4 022	4 051	56 774	69 193
*Other**	3 950	6 785	5 447	192	616	359	4 448	5 447
Developing countries	**38 256**	**39 725**	**32 139**	**1 934**	**1 638**	**2 467**	**24 317**	**32 139**
Latin American countries	**15 592**	**17 464**	**8 115**	**430**	**172**	**274**	**3 192**	**8 115**
Argentina	1 750	4 212	3 700	—	—	—	17	3 700
Brazil	4 475	6 649	—	50	19	150	219	—
Chile	1 405	784	1 065	—	—	—	—	1 085
Colombia	552	589	1 052	—	—	—	89	1 052
Mexico	5 138	3 918	109	—	—	—	313	109
Venezuela	237	—	48	—	—	—	—	48
*Other***	2 035	1 312	2 121	380	153	124	2 554	2 121
Asian countries	**12 978**	**15 893**	**18 410**	**1 128**	**1 120**	**1 699**	**15 291**	**18 410**
India	968	945	818	45	619	50	1 721	818
Indonesia	2 363	1 924	451	—	—	350	1 358	451
Korea	4 387	6 201	5 898	170	195	93	3 134	5 898
Malaysia	2 197	2 605	2 219	523	—	—	1 328	2 219
Philippines	878	925	925	—	—	—	—	925
Thailand	747	1 221	1 497	—	—	358	1 401	1 497
Other	1 438	2 072	6 602	390	306	849	6 350	6 602
Middle Eastern and African countries	**9 686**	**6 368**	**5 613**	**376**	**346**	**495**	**5 834**	**5 613**
Algeria	1 993	821	1 450	—	96	250	1 344	1 450
Nigeria	2 343	985	—	—	—	—	—	—
Turkey	1 106	741	1 203	326	140	220	2 637	1 203
Other	4 244	3 821	2 960	50	108	25	1 853	2 960
Eastern European countries	**1 294**	**3 244**	**5 236**	**166**	—	**300**	**4 091**	**5 236**
Hungary	741	1 386	1 577	166	—	—	1 315	1 577
Soviet Union	93	1 051	1 489	—	—	300	1 821	1 489
*Other****	460	807	2 169	—	—	—	955	2 169
International organizations****	**16 201**	**13 287**	**20 635**	**1 663**	**1 451**	**1 991**	**18 916**	**20 635**
By type of instrument and currency								
International bond issues	**76 329**	**107 411**	**167 756**	**20 193**	**18 214**	**13 862**	**226 392**	**167 755**
Eurobonds	48 501	79 456	136 731	15 570	14 944	9 758	187 951	136 730
U.S. dollar	38 428	63 593	97 782	11 123	9 445	5 979	118 220	97 781
German mark	3 817	4 604	9 491	1 377	1 002	298	16 870	9 491
British pound	1 947	3 997	5 766	144	—	346	10 510	5 766
Japanese yen	212	1 212	6 539	1 477	1 470	1 660	18 673	6 539
European composite units	2 019	3 032	7 038	162	842	615	6 965	7 038
Other	2 078	3 020	10 114	1 288	2 186	859	16 713	10 114
Foreign bonds	27 828	27 953	31 025	4 623	3 270	4 105	38 441	31 025
U.S. dollar	4 545	5 487	4 655	700	700	1 600	6 064	4 655
German mark	2 671	2 243	1 741	—	—	—	—	1 741
British pound	811	1 292	958	—	—	—	321	958
Swiss franc	14 299	12 626	14 954	3 169	1 974	1 747	23 401	14 954
Japanese yen	3 772	4 628	6 379	359	236	449	4 756	6 379
Other	1 730	1 677	2 339	395	361	309	3 898	2 339
International bank credits	**82 074**	**125 922**	**116 964**	**6 622**	**7 293**	**11 993**	**91 164**	**116 964**
Eurocurrency credits	74 222	112 605	110 317	6 089	6 758	11 105	82 755	110 316
Foreign credits	7 852	13 317	6 647	532	535	888	8 409	6 647
Total	**158 403**	**233 333**	**284 720**	**26 815**	**25 507**	**25 855**	**317 556**	**284 719**

*Includes multinational organizations. **Includes unallocated. ***Includes COMECON institutions. ****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1983	*1984*	*1985*	*1986*						*1987*
	Dec	*Dec*	*Dec*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*
Eurodollar										
overnight	9.50	8.63	12.25	6.25	5.88	5.88	5.75	6.06	22.00	6.00
one month	9.69	8.38	8.00	6.38	5.69	6.00	5.81	6.25	6.50	6.06
three months	9.81	8.63	7.88	6.38	5.56	6.00	5.81	6.00	6.25	6.12
six months	10.06	9.13	7.88	6.38	5.56	6.00	5.81	5.94	6.12	6.12
twelve months	10.38	9.81	7.94	6.50	5.69	6.19	5.88	6.00	6.12	6.12
Euro-Canadian dollar										
one month	9.13	9.88	9.00	8.06	8.06	7.94	8.06	8.19	8.00	7.37
three months	9.50	10.81	9.00	8.31	8.13	8.19	8.31	8.31	8.12	7.37
six months	9.75	10.06	9.00	8.50	8.50	8.50	8.50	8.19	8.19	7.37
twelve months	10.00	10.44	9.00	8.75	8.63	8.75	8.69	8.56	8.31	7.50
Euro-French franc										
one month	12.13	10.69	12.50	7.13	7.13	7.38	7.38	7.56	10.12	8.81
three months	12.19	10.69	13.00	7.19	7.25	7.88	7.19	8.19	10.37	8.87
six months	12.31	11.00	13.13	7.25	7.31	7.75	7.88	8.37	9.75	8.81
twelve months	12.63	11.38	12.25	7.31	7.38	8.63	7.88	8.37	8.75	8.81
Euromark										
one month	5.25	5.50	4.75	4.63	4.44	4.50	4.44	4.69	5.12	4.00
three months	5.88	5.50	4.75	4.56	4.31	4.50	4.50	4.62	4.87	4.12
six months	6.13	5.56	4.75	4.56	4.31	4.56	4.56	4.69	4.81	4.12
twelve months	6.38	5.56	4.81	4.63	4.31	4.63	4.63	4.69	4.81	4.19
Euro-Dutch guilder										
one month	5.81	5.69	5.75	5.56	5.25	5.31	5.31	5.81	6.31	5.44
three months	6.00	5.75	5.75	5.44	5.13	5.25	5.31	5.69	6.00	5.31
six months	6.25	5.81	5.81	5.38	5.06	5.25	5.31	5.56	5.87	5.19
twelve months	6.38	5.94	5.88	5.38	5.06	5.25	5.31	5.56	5.81	5.19
Euro-Swiss franc										
one month	3.38	4.44	3.88	4.63	4.19	3.81	2.94	3.87	3.94	3.25
three months	3.75	4.56	4.00	4.63	4.13	4.06	3.75	3.87	3.94	3.19
six months	3.94	4.63	4.00	4.63	4.13	4.06	3.75	3.87	3.87	3.31
twelve months	3.94	4.69	4.06	4.63	4.13	4.06	3.81	3.87	3.87	3.62
Eurosterling										
one month	9.13	9.50	11.69	9.94	10.00	10.50	10.81	11.06	11.12	11.06
three months	9.31	9.88	11.81	9.94	9.81	10.19	11.13	11.37	11.12	11.00
six months	9.50	10.00	11.81	9.88	9.63	10.75	11.13	11.37	11.06	10.87
twelve months	9.81	10.19	11.69	9.94	9.56	10.81	11.06	11.37	11.06	10.75
Euroyen										
one month	6.25	6.19	7.13	4.75	5.13	4.94	4.25	4.62	4.56	4.37
three months	6.31	6.19	6.56	4.75	4.75	4.88	4.56	4.50	4.50	4.25
six months	6.38	6.13	6.50	4.69	4.63	4.88	4.56	4.50	4.37	4.12
twelve months	6.44	6.13	6.38	4.69	4.63	4.88	4.56	4.50	4.31	4.06
European currency unit										
one month	8.81	9.25	9.63	7.25	7.25	7.25	7.44	7.56	8.56	7.62
three months	9.19	9.38	9.63	7.19	7.06	7.25	7.56	7.62	8.44	7.56
six months	9.44	9.50	9.63	7.19	6.88	7.25	7.50	7.62	8.06	7.50
twelve months	9.63	9.63	9.63	7.13	6.88	7.25	7.50	7.56	7.31	7.50

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years at or near end of month

	1984	*1985*	*1986*							*1987*
	Dec	*Dec*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*
United States companies										
Eurodollar	11.25	9.68	9.09	8.97	8.60	9.04	8.76	8.71	8.67	8.70
Euromark	6.95	6.73	6.65	6.55	6.55	6.73	6.66	6.63	6.62	6.64
Swiss franc	5.73	5.49	5.63	5.56	5.63	5.65	5.67	5.73	5.70	5.67
European governments										
Eurodollar	12.04	10.52	10.00	9.97	9.73	9.92	9.85	9.81	9.91	9.85
Euromark	7.39	7.03	6.95	6.81	6.64	6.63	6.78	6.88	6.77	6.64
Swiss franc	5.24	4.91	4.76	4.73	4.66	4.61	4.57	4.58	4.51	4.40
European currency unit	10.64	10.23	10.31	10.02	10.17	10.23	10.49	10.55	10.20	10.38

Central bank discount rates

at or near end of month

	1983	*1984*	*1985*	*1986*				*1987*	*Current*	
	Dec	*Dec*	*Dec*	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb 23 1987*	*effective since*
United States	8.50	8.00	7.50	5.50	5.50	5.50	5.50	5.50	5.50	Aug 21, 86
Canada	9.96	10.09	9.49	8.60	8.55	8.49	8.47	7.49	7.59	Feb 19, 87
Austria	3.75	4.50	4.00	4.00	4.00	4.00	4.00	3.50	3.50	Jan 23, 87
Belgium	10.00	11.00	9.75	8.00	8.00	8.00	8.00	8.50	8.50	Jan 8, 87
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.50	9.50	9.00	7.00	7.00	7.00	7.00	7.00	7.00	May 19, 86
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.00	4.50	4.00	3.50	3.50	3.50	3.50	3.00	3.00	Jan 23. 87
Ireland	12.25	14.00	10.25	10.00	13.25	13.25	13.25	13.25	13.25	Oct 24, 86
Italy	17.00	16.50	15.00	12.00	12.00	12.00	12.00	12.00	12.00	May 27, 86
Netherlands	5.00	5.00	5.00	4.50	4.50	4.50	4.50	4.50	4.50	Mar 7, 86
Norway	8.00	8.00	8.00	8.00	8.00	8.00	8.00	n.a.	n.a.	Jun 6, 83
Portugal	25.00	25.00	19.00	14.50	14.50	14.50	16.00	15.50	15.50	Jan 7, 87
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.50	9.50	10.50	7.50	7.50	7.50	7.50	7.50	7.50	Sep 19, 86
Switzerland	4.00	4.00	4.00	4.00	4.00	4.00	4.00	3.50	3.50	Jan 22, 87
United Kingdom	9.00	9.38	11.31	9.81	10.81	10.81	10.81	10.81	10.81	Oct 15, 86
Japan	5.00	5.00	5.00	3.50	3.50	3.00	3.00	3.00	2.50	Feb 23, 87
New Zealand	7.50	13.50	19.80	15.70	16.50	n.a.	n.a.	n.a.	17.40	Nov 13, 86
South Africa	18.50	21.75	13.50	10.50	10.50	10.50	10.00	10.00	10.00	Dec 10, 86
*Argentina**	15.10	18.19	5.00	9.79	10.59	10.59	11.19	11.53	11.53	Jan 30, 87
Korea	5.00	5.00	5.00	7.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 86
Philippines	8.05	12.11	11.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Jun, 86
Singapore	7.00	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Jul, 85
Thailand	13.00	12.00	11.00	8.00	8.00	8.00	8.00	8.00	8.00	Sep 1, 86
Venezuela	11.00	11.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	Mar, 85

***Percent per month.**

Day-to-day money rates

monthly averages

	1983	*1984*	*1985*	*1986*							*1987*
	Dec	*Dec*	*Dec*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*
United States	9.47	8.38	8.27	6.91	6.55	6.16	5.92	5.84	5.64	6.71	6.43
Canada	8.78	10.50	9.23	8.19	8.38	8.10	8.10	8.38	8.52	8.28	8.03
Austria	5.75	7.63	7.25	4.88	5.13	5.13	5.50	5.37	5.00	7.62	4.25
Belgium	7.39	9.12	6.60	5.18	6.34	6.37	5.76	6.36	6.00	5.47	7.47
Finland	16.70	15.07	11.96	10.83	10.80	24.17	13.86	11.93	11.80	11.97	11.99
France	12.27	10.95	9.01	7.22	7.28	7.05	7.08	7.31	7.31	7.28	8.80
Germany	5.61	5.62	4.64	4.39	4.61	4.51	4.38	4.38	4.58	5.04	4.01
Ireland	12.19	14.50	9.62	9.50	9.63	9.75	9.63	11.00	13.13	13.00	n.a.
Italy	17.88	17.25	14.75	12.34	12.11	11.78	11.25	10.98	9.67	11.42	11.88
Netherlands	5.84	5.60	5.75	6.06	6.13	5.56	5.31	5.38	5.60	6.19	6.20
Norway	12.30	12.50	12.40	14.00	14.00	14.00	14.00	14.00	n.a.	n.a.	n.a.
Spain	16.98	12.18	9.92	12.03	12.26	12.34	11.58	11.68	11.69	11.76	12.21
Sweden	11.52	11.88	11.83	9.88	9.56	9.52	8.92	10.00	10.00	8.00	12.00
Switzerland	1.88	1.50	2.00	1.75	2.25	2.00	2.00	1.00	1.00	1.12	1.00
United Kingdom	7.78	6.31	9.72	10.53	8.98	8.70	8.06	11.19	10.73	9.19	11.06
Australia	4.55	10.98	18.37	13.20	13.43	16.42	17.22	17.13	16.47	15.40	15.86
Japan	6.44	6.41	8.02	4.39	4.50	4.55	4.60	4.37	3.77	4.34	4.17
South Africa	16.06	21.13	12.50	10.69	10.75	9.81	9.63	9.63	8.87	8.50	9.00
*Argentina**	14.65	17.75	4.50	5.00	5.00	7.00	6.00	7.00	7.00	7.00	7.00
Brazil	184.69	272.02	352.23	18.30	25.93	35.60	45.58	44.24	55.55	83.05	270.00
Hong Kong	13.90	6.80	6.10	6.91	5.95	5.64	4.93	3.21	4.15	3.90	n.a.
Korea	11.40	10.00	8.80	10.00	10.60	9.30	9.50	9.30	9.30	9.00	8.50
Philippines	31.18	15.22	15.03	11.61	10.16	8.99	11.72	8.42	7.98	n.a.	n.a.
Singapore	7.05	6.01	4.53	4.49	3.73	3.95	2.26	2.47	2.62	3.51	3.10
Taiwan	7.65	8.07	4.50	4.53	3.50	3.50	3.50	3.50	3.60	3.00	3.25

***Percent per month.**

Treasury bill rates

bond equivalent yields, at or near end of month

	1983	1984	1985	1986							1987
	Dec	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
United States	9.28	7.99	7.25	6.13	5.93	5.23	5.30	5.25	5.44	5.73	5.66
Canada	9.71	9.84	9.24	8.59	8.26	8.33	8.35	8.30	8.24	8.22	7.24
Belgium	11.00	10.90	9.89	7.45	7.45	7.45	7.45	7.48	7.45	7.50	7.88
Ireland	12.01	15.10	11.15	9.16	10.13	10.65	10.61	13.79	14.22	13.60	n.a.
Italy	16.29	14.19	12.70	10.50	10.44	10.13	10.34	10.13	10.00	10.00	9.94
Netherlands	5.63	5.88	5.69	5.88	5.75	4.75	5.63	5.38	5.81	6.37	5.94
Spain	14.46	12.00	9.25	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Sweden	11.75	11.83	12.49	9.85	9.29	9.25	8.66	8.44	9.05	9.20	10.25
United Kingdom	9.04	9.33	11.49	9.52	9.76	9.56	9.93	10.85	10.86	10.75	10.56
Australia	8.54	12.27	19.40	12.38	14.98	17.20	17.51	16.18	15.49	14.91	16.64
Japan	4.91	4.91	4.91	3.39	3.39	3.39	3.39	3.39	2.89	2.89	2.89
New Zealand	7.80	13.50	17.62	15.64	15.35	16.53	15.36	16.00	16.44	19.69	22.36
South Africa	18.43	21.94	12.99	10.75	10.22	9.51	9.20	9.17	8.62	8.84	8.77
Brazil	179.15	273.03	379.77	18.60	26.30	36.00	42.00	45.00	33.00	149.00	276.40
Mexico	53.78	48.67	72.98	88.50	n.t.	n.t.	n.t.	n.t.	103.77	104.03	104.64
Philippines	15.99	47.14	16.45	14.67	14.59	13,00	12.75	12.58	11.32	n.a.	n.a.
Singapore	2.59	2.91	2.94	2.42	2.54	2.15	2.01	1.99	1.93	2.10	2.19

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1983	1984	1985	1986							1987
	Dec	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
United States	9.89	8.34	8.01	6.80	6.39	5.65	5.96	5.81	5.79	7.78	6.76
Canada	9.87	10.10	9.45	8.65	8.55	8.35	8.50	8.50	8.35	8.20	7.55
Belgium	11.15	10.85	9.89	7.40	7.40	7.40	7.35	7.35	7.40	7.60	7.55
France	12.19	10.69	9.12	7.24	7.25	7.13	7.43	7.50	7.68	8.37	8.50
Germany	6.30	5.75	4.80	4.55	4.65	4.30	4.40	4.60	4.65	4.85	3.90
Ireland	12.19	15.13	12.00	9.25	10.75	10.63	11.25	14.00	14.44	14.06	n.a.
Italy	17.88	16.88	15.13	12.25	11.38	11.00	10.62	11.00	11.12	11.37	11.38
Netherlands	6.00	5.75	5.75	6.19	5.56	5.25	5.44	5.44	5.81	6.19	5.44
Portugal	24.11	24.57	20.71	16.89	15.95	16.05	15.92	15.99	15.99	16.07	15.02
Spain	19.00	12.21	10.51	12.06	12.51	12.18	11.53	11.41	11.52	11.79	12.35
Switzerland	3.88	5.00	4.75	5.50	4.88	4.25	4.25	4.19	4.00	4.50	3.75
United Kingdom	9.31	9.88	12.75	9.75	9.88	9.63	10.38	11.13	11.44	11.25	11.13
Australia	9.05	12.90	19.75	14.80	15.10	17.70	17.85	16.45	15.85	15.10	16.42
Japan	6.45	6.33	7.03	4.64	4.65	4.53	4.75	4.54	4.43	4.34	4.22
New Zealand	11.75	15.00	20.00	17.10	16.80	16.30	16.50	16.50	16.50	24.25	23.60
South Africa	19.12	22.78	13.35	10.80	10.55	9.35	9.55	9.65	8.90	8.55	9.20
Chile	20.68	20.68	22.42	14.03	15.39	11.35	12.68	20.98	n.a.	n.a.	n.a.
Hong Kong	14.88	8.25	6.50	6.75	6.31	5.00	5.25	4.38	4.44	4.62	n.a.
Indonesia	19.50	19.00	15.00	15.00	15.00	14.00	14.50	14.25	14.50	19.50	16.50
Korea	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Malaysia	9.80	10.30	8.20	10.00	9.80	11.75	12.00	9.50	6.70	6.00	5.30
Philippines	15.61	33.21	14.61	12.28	12.47	11.76	9.89	11.19	10.31	n.a.	n.a.
Singapore	8.44	7.00	5.88	4.88	4.31	3.94	3.25	2.94	3.19	3.94	3.34
Taiwan	8.07	7.85	4.10	3.68	3.27	2.81	2.65	2.65	2.80	n.a.	n.a.
Thailand	16.00	12.00	15.50	8.50	8.00	8.00	7.50	7.50	7.75	7.75	7.75

Commercial bank deposit rates

at or near end of month

	1983	1984	1985	1986							1987
	Dec	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
United States	9.70	8.35	7.75	6.65	6.33	5.47	5.80	5.75	5.78	6.30	6.00
Canada	9.82	10.05	9.40	8.60	8.50	8.30	8.45	8.45	8.30	8.15	7.50
Austria	6.50	7.50	6.50	5.13	5.13	5.13	5.75	5.62	5.37	5.50	5.12
Belgium	11.25	10.63	9.63	7.19	7.25	7.19	7.25	7.31	7.37	7.44	7.75
Denmark	6.00	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Finland	5.25	5.25	4.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
France	7.66	7.04	6.12	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Germany	5.90	5.25	4.40	4.35	4.45	4.45	4.40	4.50	4.60	4.80	4.70
Ireland	11.75	14.63	11.87	10.00	10.00	10.00	10.50	12.00	14.13	13.75	n.a.
Italy	13.25	11.64	11.85	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Netherlands	6.13	5.69	5.81	6.06	5.44	5.19	5.31	5.31	5.69	6.06	5.31
Norway	12.75	12.75	12.00	13.00	13.00	13.00	13.00	13.00	n.a.	n.a.	n.a.
Portugal	21.50	28.00	20.00	15.50	15.50	15.50	15.50	15.00	15.00	15.00	15.00
Spain	12.62	11.64	9.64	9.04	8.89	8.89	8.78	8.75	8.65	8.67	n.a.
Sweden	11.70	11.45	12.18	10.10	9.80	9.70	9.27	8.83	9.85	9.93	10.30
Switzerland	3.50	4.50	4.50	5.25	4.63	4.00	4.00	3.94	3.75	4.25	3.50
United Kingdom	9.31	9.88	11.75	9.63	9.88	9.63	10.37	11.13	11.25	11.19	11.00
Australia	10.40	12.75	18.80	14.00	14.46	16.68	17.82	16.71	15.76	15.56	15.73
Japan	6.40	6.38	7.05	4.65	4.70	4.80	4.95	4.63	4.59	4.55	4.16
New Zealand	11.75	15.25	19.98	15.10	16.47	16.57	15.50	16.60	19.00	23.50	22.72
South Africa	20.13	22.88	13.20	11.00	10.80	9.75	9.50	9.75	9.25	8.65	9.50
Argentina*	14.50	31.23	5.40	4.28	4.48	6.18	6.94	7.65	7.97	8.41	8.81
Brazil	23.00	27.00	18.00	25.00	30.00	42.00	44.00	49.00	85.00	220.00	n.a.
Chile	20.57	20.68	23.60	15.94	16.49	13.62	16.49	20.70	n.a.	n.a.	n.a.
Hong Kong	14.88	8.25	6.50	6.75	6.31	5.00	5.25	4.38	4.44	4.62	n.a.
Korea	7.60	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Malaysia	7.75	9.58	7.00	7.00	7.00	7.00	7.00	7.00	6.50	6.33	4.83
Mexico	57.15	47.45	72.90	85.50	87.50	87.50	94.30	94.30	94.30	94.30	94.30
Philippines	14.96	31.01	12.34	11.56	10.12	10.88	9.77	9.35	9.55	n.a.	n.a.
Singapore	7.44	6.13	5.26	4.82	4.26	3.88	3.19	2.88	3.13	3.63	3.19
Taiwan	7.00	6.50	5.25	4.50	4.50	4.25	4.50	4.00	4.00	4.00	4.00
Thailand	10.00	13.00	10.50	8.50	7.50	6.75	6.75	6.75	6.75	6.75	6.75
Venezuela	12.00	12.50	8.00	9.00	9.00	9.00	8.00	8.00	8.00	8.00	8.00

*Percent per month.

Domestic government bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986							1987
	Dec	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
United States	12.00	11.61	9.49	7.79	7.88	7.51	7.95	7.81	7.69	7.79	7.17
Canada	12.02	11.66	10.04	9.42	9.36	9.16	9.44	9.53	9.26	9.23	8.94
Austria	8.02	8.04	7.61	7.19	7.20	7.11	7.06	7.25	7.36	7.33	7.25
Belgium	11.89	11.58	9.60	7.86	7.47	7.24	7.36	7.31	7.41	7.70	7.57
Denmark	12.96	14.60	9.67	10.17	10.64	11.24	11.11	11.16	11.80	11.70	11.33
Finland	11.16	10.73	10.58	8.27	8.25	8.15	7.75	7.90	7.74	7.80	7.78
France	13.96	12.70	11.33	8.65	8.55	8.05	8.51	8.97	9.49	9.89	9.54
Germany	8.38	7.17	6.57	6.17	6.07	5.95	6.26	6.44	6.33	6.25	6.20
Ireland	14.25	14.90	11.84	9.31	10.33	11.33	12.46	13.65	13.49	13.97	n.a.
Italy	17.69	14.52	13.66	10.83	11.06	10.81	10.43	10.26	10.33	10.05	9.78
Netherlands	8.58	7.72	6.96	6.38	6.22	6.03	6.04	6.22	6.30	6.40	6.21
Norway	12.50	12.00	13.10	13.10	13.42	13.40	13.40	13.40	n.a.	n.a.	n.a.
Portugal	22.11	22.23	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	17.25	13.93	12.30	10.98	11.52	11.52	11.10	10.15	10.29	10.36	10.74
Sweden	12.30	12.04	12.11	9.79	9.76	9.63	9.49	9.31	10.35	10.66	11.70
Switzerland	4.53	4.60	4.42	4.43	4.39	4.26	4.26	4.19	4.16	4.05	4.02
United Kingdom	9.94	10.25	10.35	9.32	9.45	9.31	10.31	10.40	10.58	10.17	10.64
Australia	13.65	13.50	14.85	12.95	14.02	14.10	13.85	13.60	13.60	13.40	13.75
Japan	7.45	6.47	5.92	4.90	4.83	4.57	4.65	4.95	4.77	4.66	4.23
New Zealand	10.50	16.90	17.00	15.40	16.20	15.90	15.35	15.20	16.00	15.85	16.20
South Africa	13.64	16.55	18.09	16.99	16.00	14.03	15.24	15.83	14.13	15.06	15.33
Philippines	14.47	18.54	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.a.	n.a.
Venezuela	13.50	14.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

Commercial bank lending rates to prime borrowers

at or near end of month

	1983	1984	1985	1986							1987
	Dec	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
United States	11.00	10.75	9.50	8.50	8.00	7.50	7.50	7.50	7.50	7.50	7.50
Canada	11.00	11.25	10.00	10.25	9.75	9.75	9.75	9.75	9.75	9.75	9.25
Austria	9.25	9.25	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Belgium	13.75	14.00	11.50	9.75	9.75	9.75	9.75	9.75	9.75	9.75	10.75
Denmark	10.00	10.50	8.50	7.50	7.50	8.00	8.00	8.00	8.00	8.00	9.50
Finland	10.18	10.68	10.37	8.82	8.76	8.79	8.77	8.75	8.74	8.81	n.a.
France	12.25	12.00	10.60	9.60	9.60	9.60	9.45	9.45	9.45	9.45	9.45
Germany	7.75	7.75	7.25	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75
Ireland	13.75	15.75	12.50	12.25	12.25	12.25	12.25	15.75	15.75	15.75	n.a.
Italy	18.75	18.00	15.88	13.50	13.50	13.50	13.00	13.00	13.00	13.00	13.00
Netherlands	7.00	6.25	6.25	6.75	6.50	5.88	5.88	5.88	6.12	7.12	6.13
Norway	13.50	13.00	12.40	15.50	15.25	15.25	15.75	15.88	n.a.	n.a.	n.a.
Portugal	30.00	29.00	22.50	18.00	18.00	18.00	18.00	17.50	17.50	17.50	17.50
Spain	17.31	15.84	14.75	14.44	14.37	14.36	14.29	14.25	14.23	14.22	14.24
Sweden	13.50	14.50	15.05	12.75	12.75	12.75	11.50	11.50	11.50	11.50	11.50
Switzerland	6.00	6.00	6.00	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.25
United Kingdom	9.00	9.50	11.50	10.00	10.00	10.00	10.00	11.00	11.00	11.00	11.00
Australia	12.75	14.00	21.00	18.00	17.25	18.50	19.00	19.00	18.45	18.25	18.00
Japan	5.89	5.70	5.71	4.71	4.57	4.52	4.48	4.48	4.45	n.a.	n.a.
New Zealand	11.00	14.00	21.00	18.00	17.00	16.50	17.00	17.00	18.50	18.50	24.00
South Africa	20.00	24.00	16.50	14.50	14.50	14.00	13.50	13.50	13.50	12.00	12.50
Argentina*	15.50	32.05	7.30	5.35	5.57	7.70	8.62	8.70	8.85	11.30	9.85
Brazil	24.00	31.00	19.00	27.00	32.00	44.00	46.00	51.00	88.00	250.00	n.a.
Chile	30.90	60.82	33.34	29.38	28.77	26.38	23.51	27.20	n.a.	n.a.	n.a.
Hong Kong	13.50	11.00	7.00	7.50	7.50	6.50	6.50	6.50	6.50	6.50	5.00
Indonesia	19.75	23.50	18.75	19.00	18.75	18.75	18.75	18.25	18.25	19.75	20.50
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Malaysia	11.00	12.00	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.00	9.00
Mexico	56.44	47.54	65.66	76.97	81.36	84.40	87.72	91.48	94.19	95.33	95.89
Philippines	18.00	44.00	15.00	14.00	14.00	13.50	13.00	12.00	11.00	10.00	n.a.
Singapore	8.98	9.40	7.20	7.15	7.05	6.83	6.45	6.28	6.10	6.10	6.10
Taiwan	10.25	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Thailand	16.00	16.50	15.50	14.00	12.75	12.00	12.00	12.00	12.00	12.00	12.00
Venezuela	16.00	16.00	13.00	14.00	14.00	14.00	13.00	13.00	13.00	13.00	13.00

*Percent per month.

Domestic corporate bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986							1987
	Dec	Dec	Dec	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
United States	12.63	12.25	10.15	9.00	9.25	8.63	9.00	9.00	8.88	8.88	8.50
Canada	12.89	12.42	10.74	10.10	10.19	10.00	10.32	10.39	10.21	10.18	n.a.
France	14.35	12.94	11.76	9.85	9.12	8.37	8.92	9.36	9.77	10.18	9.92
Germany	8.30	7.20	6.90	6.50	6.60	6.40	6.30	6.40	6.60	6.50	6.50
Netherlands	8.51	7.51	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Norway	13.25	12.75	14.00	14.25	14.90	15.00	15.50	15.00	n.a.	n.a.	n.a.
Spain	20.07	18.32	14.92	13.71	13.22	13.68	13.38	13.24	13.61	13.40	13.72
Sweden	12.21	12.33	13.25	11.04	10.88	10.99	10.82	10.77	11.72	11.99	13.00
Switzerland	4.92	5.09	4.93	4.83	4.84	4.77	4.77	4.73	4.71	4.72	4.62
United Kingdom	11.57	11.64	11.47	10.32	10.49	10.32	10.34	11.58	11.43	11.71	11.30
Japan	7.09	6.21	6.90	5.14	4.74	5.14	n.a.	n.a.	n.a.	n.a.	n.a.
Korea	14.20	15.00	13.60	12.80	12.90	12.80	12.80	12.80	12.80	12.70	12.70
Venezuela	18.00	18.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00

Key to data in tables

I. International markets

Data on the *international banking market size* are based on resident and nonresident Eurocurrency (i.e., foreign currency) assets and liabilities and on nonresident domestic currency assets and liabilities of banks in nearly all European countres, the Bahamas, Bahrain, Canada, Cayman Islands, Hong Kong, Japan, Netherlands Antilles, Panama, Singapore, and the United States. All assets and liabilities of international banking facilities (IBFs) of banks in the United States are treated as Eurocurrencies.

An *international bond issue* may be either a Eurobond issue or a foreign bond issue. A *Eurobond issue* is one placed principally in countries other than that of the currency in which the bond is denominated, usually through an international syndicate. A *foreign bond issue* is one issued by a nonresident borrower on the market of a single country and denominated in that country's currency. Data on new international bond issue volume include all publicly announced issues of straight bonds, convertibles, bonds with warrants, floating rate notes, and certificates of deposit with an original maturity of three years or more (one year or more beginning in 1985), whether publicly or privately placed.

An *international bank credit* may be either a Eurocurrency credit or a foreign credit. A *Eurocurrency credit* is one denominated in a currency that is foreign to the country of the bank office extending the credit. *A foreign credit* is one extended to a nonresident borrower and denominated in the domestic currency of the country in which the bank office extending the credit is located. Data on new international bank credit volume include all publicly announced bank credits with an original maturity of one year or more (term loans, revolving lines of credit, and facilities to back up the issuance of other financial instruments such as commercial paper, short-term notes, certificates of deposit and banker's acceptances).

Data on international bond issues and bank credits through 1984 were compiled by Morgan Guaranty Trust Company. Beginning in January 1985 these data are based on figures published in the OECD's *Financial Statistics Monthly.*

II. Domestic markets

Central bank discount rates

Rates shown are the official discount rates with the exception of:

Ireland — Short Term Facility rate.

South Africa — discount rate for 90-day banker's acceptances.

United Kingdom — rate of discount for outright purchases of 15- to 33-day bank bills.

Day-to-day money rates

Argentina—7-day interbank money regulated by the central bank.

Austria — day-to-day interbank rate.

Australia — effective interest rate in the official short-term money market.

Belgium — day-to-day loan rate in the call money market.

Brazil — interbank overnight money.

Canada—chartered banks' day-to-day loans.

Finland — Bank of Finland call money.

France — interbank call money against private paper.

Germany — interbank call money.

Hong Kong — interbank 24-hour call rate.

Ireland — interbank call money.

Italy — interbank 48-hour call money.

Japan—Tokyo interbank call money, unconditional lenders rate.

Korea — overnight interbank call money.

Netherlands — open-market call money.

Norway — day-to-day interbank rate.

Philippines — interbank call loan rate.

Singapore — interbank overnight money.

South Africa — discount houses basic call rate.

Spain — day-to-day interbank rate.

Sweden — interbank call money.

Switzerland — call money.

Taiwan — private interbank overnight loan rate.

United Kingdom — call money.

United States — federal funds rate.

Treasury bill rates

Australia — 13-week Treasury notes at tender.

Belgium — new issue of 3-month Treasury certificates.

Brazil — 3-month Treasury bills.

Canada — 3-month Treasury bills at tender.

Ireland — 3-month central bank exchequer bills at tender.

Italy — 6-month Treasury bills.

Japan — 60- to 62-day noninterest-bearing discount government bills.

Mexico — 3-month Federal Treasury bills.

Netherlands — 3-month Treasury bills.

New Zealand — tap issue rate for 3-month Treasury bills until December 1984. As of January 1985, 3-month Treasury bills at tender.

Philippines — simple average of 91-day Treasury bills at tender until June 1984. Beginning July 1984 rates refer to the weighted average interest rate on 91- to 183-day Treasury bills sold to banks under negotiated basis.

Singapore — 91-day Treasury bills at tender.

South Africa — 3-month Treasury bills at tender.

Spain — 6-month Treasury bills at tender until March 1984. As of April 1984, 3-month Treasury bill repos reported by the Bank of Spain (average of quotations during the month).

Sweden — new issues of 3-month Treasury bills until June 1982. New series as of July 1982, 6-month Treasury discount notes, market rate.

United Kingdom — 91-day Treasury bills at tender.

United States — 3-month Treasury bills.

Representative money-market rates

Australia — buying rate for 90-day bank accepted commercial bills.

Belgium — 4-month Fonds des Rentes certificates.

Canada — 3-month prime finance company paper.

Chile — central bank 60-day fixed rate promissory notes (PDBC) at tender.

France — 3-month interbank money against private paper.

Germany — 3-month interbank deposits.

Hong Kong — 3-month interbank deposits.

Indonesia — 1-month interbank deposits.

Ireland — 3-month interbank deposits.

Italy — 3-month interbank deposits.

Japan — 3-month "gensaki" rate.

Korea — 3-month financial bill.

Malaysia — 3-month interbank deposits.

Netherlands — 3-month interbank deposits.

New Zealand — 90-day commercial bills.

Philippines—weighted average interest rate for 90-day promissory rates.

Portugal — average of 30- to 90-day interbank deposits.

Singapore — 3-month banker's acceptances.

South Africa—90-day banker's acceptances.

Spain — 3-month interbank rate reported by the Bank of Spain (average of quotations during the month).

Switzerland — 3-month interbank deposits.

Taiwan — 90-day banker's acceptances.

Thailand — interbank call money.

United Kingdom — 3-month interbank deposits.

United States — 3-month prime industrial paper.

Commercial bank deposit rates

Argentina — nominal 30-day time deposits. Average of bank rates published by the central bank until August 1984. New series as of September 1984, 30-day acceptances maximum interest rate.

Austria — 3-month time deposits.

Australia — 3-month certificates of deposit.

Belgium — special maximum rate for 3-month time deposits in large amounts.

Brazil — 6-month certificates of deposit with prefixed yields until July 1982. New series as of August 1982, 6-month certificates of deposit reported as a spread above monetary correction which is set every month in relationship to inflation.

Canada — 3-month time deposits.

Chile — 30-day time deposits.

Denmark — time deposits of 3-months' notice.

Finland — time deposits of six-month notice.

France — 3-month time deposits of FF. 1,000,000.

Germany — 3-month time deposits in large amounts.

Hong Kong — negotiable 3-month time deposits of more than HK$500,000.

Ireland — 3-month deposits.

Italy — 3-month time deposits of Lit. 100 million or more.

Japan — 90-day negotiable certificates of deposit issued by the Tokyo office of Morgan Guaranty Trust Company.

Korea — 3-month time deposits.

Malaysia — 3-month time deposits.

Mexico — 3-month certificates of deposit until September 1983. New series as of October 1983, 3-month promissory notes.

Netherlands — 3-month time deposits in large amounts.

New Zealand — 6-month transferable certificates of deposit.

Norway — 3-month special term deposits.

Philippines — weighted average interest rates on 60- to 90-day time deposits of sample commercial banks.

Portugal — 90- to 180-day time deposits until May 1984. New series as of June 1984, 180-day to one-year time deposits.

Key to data in tables — continued

Singapore — 3-month certificates of deposit.

South Africa — 3-month negotiable certificates of deposit.

Spain — deposits over 6 months and less than 1 year for Pts. 1 million or more reported by the Bank of Spain.

Sweden — 3-month certificates of deposit.

Switzerland — 3-month time deposits.

Taiwan — maximum rate for 3-month time deposits.

Thailand — 3-month time deposits.

United Kingdom — 3-month time deposits.

United States — 3-month negotiable certificates of deposit issued by Morgan Guaranty Trust Company.

Venezuela — 6-month negotiable certificates of deposit for domestic depositors only.

Domestic government bond yields

Austria — Austrian National Bank average yield on all outstanding government bonds.

Australia — secondary market yield for 10-year Treasury bonds.

Belgium — Belgium National Bank secondary market average yield on central government bonds of more than 5 years' maturity quoted on Brussels Stock Exchange.

Canada — Bank of Canada average yield on all direct government bonds due or callable in 10 years or more.

Denmark — 12% serial bonds maturing 2001 until April 1983. New series as of May 1983, 10% serial bonds maturing 2004.

Finland — rate of interest at issue on central government bonds intended for public subscription, weighted by sales of bonds in the latter half of each month.

France — INSEE secondary market weighted average yield of public sector bonds with a remaining maturity of 10 years or more.

Germany — Frankfurter Allgemeine Zeitung 10-year public authority bond average.

Ireland — 15-year government bonds.

Italy — average yield on fixed-interest government bonds, not including irredeemable bonds, weighted by the amounts in circulation, for maturities of 9 years or more.

Japan — secondary market average yield on longest-term life government bonds as quoted by the Securities Dealers Association of Japan.

Netherlands — Central Bureau of Statistics (CBS) average yield on three latest government bonds.

New Zealand — average yield on government bonds maturing after 5 years.

Norway — 5% government bond of 1996 until December 1982. New series as of January 1983, average yield of long-term government bonds.

Philippines — weighted average interest rate of outright sales on secondary transactions for central bank certificates of Indebtedness.

Portugal — yield of 4% Centenary Loan of 1940.

South Africa — 25-year government bonds until August 1983; 20-year Republic of South Africa bonds until April 1984; new series as of May 1984, secondary market yield for the 13% due 2005 Republic of South Africa bond.

Spain — Bank of Spain secondary market weighted average yield of several central government issues with more than 2 years' maturity (average of quotations during the month).

Sweden — 15-year government bonds until October 1983. New series as of November 1983, 5-year government bond yield index, market rate.

Switzerland — Swiss Confederation bond average.

United Kingdom — F.T. (*Financial Times*) Actuaries 25-year government stock.

United States — Morgan Guaranty 20-year U.S. Government Bond Index.

Venezuela — Banco Central average yield on public-sector bond issues.

Commercial bank lending rates to prime borrowers

Argentina — average rate on 30-day loans.

Austria — overdraft rate for prime borrowers, including commission.

Australia — overdraft rate. Maximum Indicator rate applying to loans of A$100,000 or more for major trading banks.

Belgium — prime overdraft rate.

Brazil — prefixed rate applied to working capital loans until July 1982; monetary-corrected free rate applied to working capital loans from August 1982 to July 1983. New series as of August 1983, maximum legal rate reported as a spread above monetary correction which is set every month in relationship to inflation. Charges for fees and commissions are often added.

Canada — prime rate.

Chile — average prime rate of six major commercial banks.

Denmark — approximate rate for loans and advances to prime borrowers.

Finland — average rates on total commercial bank lending.

France — base lending rate, excluding a commission of .05% per month on highest debit balance during the month. A spread above base rate is often added.

Germany — approximate effective overdraft rate for prime borrowers.

Hong Kong — prime lending rate set by the Hong Kong Association of Banks.

Indonesia — prime rate for domestic affiliates of foreign companies.

Ireland — AA corporate borrowing rate.

Italy — unsecured overdraft rate for prime borrowers.

Japan — average contracted interest rate for short-term loans of city banks. In addition, compensating balances may be required.

Korea — prime rate.

Malaysia — Bank of Commerce Berhad base lending rate.

Mexico — base rate or average cost of money for banks determined monthly by the Banco de Mexico S.A.

Netherlands — overdraft rate for prime borrowers, including commission.

New Zealand — overdraft rate for prime borrowers.

Norway — overdraft rate, including a commission of .25% per quarter on the total line of credit until January 1983. New series as of February 1983, special rate of first class, large borrowers.

Philippines — prescribed administrative ceiling for unsecured loans with maturities of 365 days and below, including charges until December 1982. New series as of January 1983, modal rate to prime borrowers.

Portugal — maximum rate for 90- to 180-day loans.

Singapore — most common overdraft rate, major banks.

South Africa — unsecured overdraft rate for prime borrowers.

Spain — private banks' average interest rate for 1-year loans reported by the Bank of Spain.

Sweden — overdraft rate for prime industrial borrowers, commission not included.

Switzerland — unsecured overdraft rate for prime borrowers, excluding commission of .25% per quarter on average or highest outstanding debit balance in quarter.

Taiwan — maximum rate for 3- to 12-month secured loans. Rate is an indication only and may vary from actual bank lending rate which is subject to volatile interbank rates.

Thailand — prime rate.

United Kingdom — clearing bank base lending rate. A spread above base rate is often added.

United States — prime rate of Morgan Guaranty Trust Company.

Venezuela — representative rate for domestic prime borrowers only.

Domestic corporate bond yields

Canada — McLeod, Young, Weir Co. Ltd., weighted long-term bond yield index for AA corporates.

France — INSEE secondary market weighted average yield of private company bonds with a remaining maturity of 10 years or more.

Germany — Bundesbank secondary market weighted average yield of industrial bonds with a remaining maturity of more than 3 years.

Japan — secondary market yield for NTT bond maturing March 1987.

Korea — average of yields on corporate bonds guaranteed by local banks, with an original maturity of 3- 2- 5-years.

Netherlands — CBS average yield on three 6%-6.5% corporate bonds until December 1981. As of January 1982, CBS secondary market weighted average yield on all commercial bank issues with a quotation between 92% and 103%.

Norway — 5.75% Dalen Portland-Cement bond of 1969-1984 until December 1982. New series as of January 1983 average yield of long-term industrial bonds.

Spain — Bank of Spain seconary market weighted average yield of several corporate issues with more than 3 years' maturity (average of quotations during the month).

Sweden — Central Satistical Bureau average yield on industrial bonds.

Switzerland — average yield on outstanding bonds of four leading Swiss companies. Mixture changed as of January 1982.

United Kingdom — *Financial Times* secondary market average yield of industrial and financial company debentures and loan stocks with an average of 25 years to maturity.

United States — Salomon Brothers index of new issues yields for Aa industrial bonds with five-year call protection.

Venezuela — average of yields on 15-year bond issues of Electricidad de Caracas.

World Financial Markets

Published by
Morgan Guaranty Trust Company of New York
International Economics Department
23 Wall Street, New York, NY 10015

Member, Federal Deposit Insurance Corporation Printed in U.S.A.

3/26/87 B6200-2

World Financial Markets

Morgan Guaranty Trust Company of New York

February/March 1987

The G-5 communiqué: an appraisal, 1

Trade adjustment to date, 2

Inadequate adjustment assured, 3

A "free-fall" or a "hard landing"?, 5

Inflation worries, 6

The twin U.S. deficits and economic growth, 8

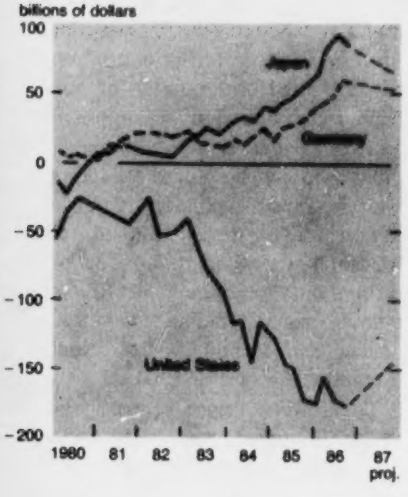
The G-5 at sixes and sevens?, 11

Statistical appendix, 13

Chart 1

Trade balances

seasonally adjusted annual rates, CIF valuation



The G-5 communiqué: an appraisal*

Ministers of the Group of Five (G-5) industrial countries, plus Canada, recognized at their February meeting that the U.S. and other large trade imbalances "pose serious economic and political risks." Maintaining, however, that the substantial exchange rate changes that have occurred "will increasingly contribute to reducing external imbalances," they went on to assert that their currencies are now "within ranges broadly consistent with underlying economic fundamentals, *given the policy commitments summarized in this statement*" (emphasis added). Their communiqué concluded by proclaiming agreement "to cooperate closely to foster stability of exchange rates around current levels."

The new G-5 position, including its endorsement of at least temporary currency stabilization, should be evaluated in relation to today's interrelated imperatives of rectifying the U.S. trade imbalance and, at the same time, bolstering growth in the leading industrial economies to bring them closer to economic potential — both for their own sakes and to provide the thriving export opportunities so vital for the solution of LDC debt problems.

Although the U.S. trade deficit may narrow by $20-$25 billion or so this year from the $166 billion of 1986 (see Chart 1), it looks unlikely to fall below $100 billion annually during the remainder of this decade on the basis of present exchange rates and national growth policies. Economic growth remains less than robust in the United States and is faltering in Japan and Germany, whose exports are in trouble and macroeconomic policies restrictive.

After two years of warnings of the risks of inaction, both Japan and Germany remain profoundly averse to what they consider "artificial" domestic policy stimulus. Instead, they crave a more stable dollar — in part, to avert the inflation and interest rate risks to the United States from too low a dollar but also to retain a competitive edge for their own economies. It is further argued that the twin U.S. deficits, on budget and trade, are closely linked and that both can be tackled effectively only through U.S. fiscal stringency.

The United States has begun taking its fiscal medicine, probably in larger dosage than generally recognized. Budget restraint alone, however, carries no guarantee of trade

---

*Statement submitted by Rimmer de Vries, Senior Vice President, Morgan Guaranty Trust Company, to the Budget and Foreign Relations Committees of the U.S. Senate in March 1987.

Table 1

U.S. bilateral trade balances

FAS/CIF valuation
billions of dollars at annual rates,
not seasonally adjusted

		3 months ended Jan 1987	
	1986	*Actual*	*Change from year earlier*
Japan	—58.6	—62.9	—4.4
*Canada**	—23.3	—22.5	3.3
Western Europe	—32.3	—33.8	2.1
Germany	—15.6	—15.5	0.1
France	—3.4	—3.7	0.8
United Kingdom	—4.6	—5.9	0.4
Italy	—6.5	—5.8	1.1
Netherlands	3.5	4.1	1.2
Latin America	—13.6	—13.5	7.3
Brazil	—3.5	—3.1	0.8
Mexico	—5.2	—5.8	1.2
*OPEC***	—4.6	—4.2	3.3
Asia excluding Japan	—37.4	—41.3	—5.8
Hong Kong	—7.1	—7.7	—2.1
Korea	—15.7	—17.3	—4.8
Singapore	—6.4	—7.5	—0.8
Taiwan	—1.5	—2.2	—0.7
Other countries	0.0	—0.4	—3.4
Total preliminary	—169.8	—178.6	2.4
Total revised	—166.3		

*According to Canadian data, U.S. customs statistics understated U.S. exports to Canada by $12 billion in 1986. Annual bilateral reconciliations normally resolve this discrepancy largely in favor of the Canadian data and lead to eventual revision of the U.S. balance of payments basis trade statistics.

**Excluding Ecuador, Indonesia, and Venezuela.

deficit correction and satisfactory world economic growth *simultaneously*. The outcome depends on policies beyond exclusive U.S. Administration or Congressional control. For example, if U.S. monetary policy is now to be dedicated to dollar stability at current exchange rates, U.S. interest rates likely will have to be higher than would be otherwise necessary. Instead, U.S. fiscal restraint should be matched, indeed outdone, by a prudent combination of easier U.S. monetary policy with *fiscal* and, to some extent, monetary policy relaxation in Japan and Europe. With easier, yet responsible, U.S. monetary policy, the U.S. economy would enjoy competitive benefit, without suffering permanent inflationary harm from the further drop in the dollar that would likely ensue. But it requires policy relaxation abroad as well to enable economic growth generally — in the United States, the other industrial countries, and the LDCs — to come out ahead even as imbalances are put right.

Trade adjustment to date

The U.S. trade deficit climbed on the CIF valuation from $148 billion in 1985 to $166 billion last year, despite a $15 billion saving on oil imports. With estimated oil savings of $19 billion and $9 billion respectively, Japan's trade surplus jumped from $56 billion to $93 billion and Germany's from $30 billion to $58 billion. Measured *in dollars*, it is unclear that the surpluses of Japan and Germany are coming down. As for the U.S. imbalance, January's red ink of $14.8 billion is consistent with the view that the deficit has stabilized but not that it is narrowing. Although the U.S. bilateral deficits with Canada and Europe have edged a little lower during the past twelve months, they have widened with Japan and spectacularly with the Asian NICs (see Table 1).

The price and exchange rate valuation changes consequent to the dollar's two-year decline have masked substantial adjustments in *volume* terms. Overall U.S. import volumes have continued to increase but the pace has moderated. While some foreign suppliers have made strong new inroads into the U.S. market — for example, Korea in automobiles — the volume growth of U.S. manufactures imports generally has eased from the explosive pace of three years ago to under 10% in the second half of 1986. By contrast, volume growth in Germany's imports picked up from 4.6% in 1985 to 6.1% in 1986 as a whole, although the pace slackened toward the end of the year (see Chart 2). Following stagnation in 1985, Japan's import volume picked up steam in 1986, growing by 13.4% overall. Excluding the special factor of temporarily large gold imports, Japan's manufactures import volume rose 12%, albeit from an extremely low base.

Although January seems to have brought a new, and probably temporary, setback, overall U.S. export volume jumped 9% in the final quarter of 1986 above the third-quarter level. This was a significant change of direction, following steady declines that amounted to 22% in manufactures and 36% in agricultural products from the end of 1980 through the third quarter of 1986. Both Japan and Germany appear to be losing market share and sales volume in the U.S. market. Japan's overall export volume, which attained a peak growth rate of 16% in the first half of 1984, declined throughout 1986 (see Chart 3). Germany's export volume growth has eroded more gradually, but virtually halted by the end of 1986.

The shifting trends in export and import volumes mean that net foreign trade now is contributing posi-

Chart 2

Import volumes

half-year percent change from year earlier

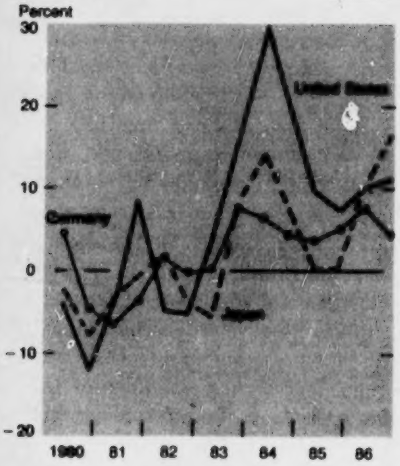
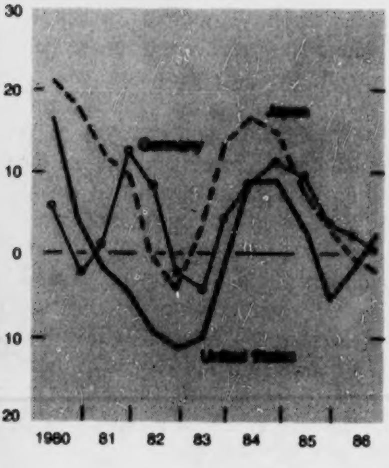


Chart 3

Export volumes

half-year percent change from year earlier



tively to U.S. real GNP growth: indeed, the $12 billion gain in real net exports recorded in the fourth-quarter 1986 GNP accounts provided the entire 1.3% quarter-to-quarter growth in economic activity overall. During 1984-85 and well into 1986, it was the common U.S. lament that an ever-widening trade deficit was bleeding off, to the benefit of foreign rivals, domestic demand growth that might have been met by U.S. firms (see Table 2). This can no longer be said. Instead, the clog now cramps the other foot. Falling real net exports have subtracted from real GNP growth in Japan and Germany since 1985, especially in Japan. Thus despite a sizable increase in Japan's domestic demand during 1986, its fourth-quarter real GNP gain is estimated to have sagged to 1.3%, year on year, compared with an average of 4% annually during the earlier years of the 1980s. In Germany's case, real GNP actually declined during the final quarter of 1986 and its growth was only 2.6% over the course of the year — hardly different from the pace of 1983-85 and a far cry from the ebullient projections celebrated by most European commentators not long ago.

It is an open question how far these net export swings should be attributed to exchange rate shifts. Domestic demand is a key determinant of both exports and imports, especially the latter. This was clearly the case in 1984, when U.S. domestic demand was roaring ahead and sucked in imports from everywhere. Since 1984, U.S. domestic demand growth has receded greatly, contributing importantly to the moderation of non-oil import growth. Conversely, the step-up in domestic demand growth helps explain recent import growth in both Japan and Germany.

The separate power of the exchange rate factor is more visible in exports. Japan's have been hit much harder than Germany's during the past two years. Although the yen and the mark have appreciated by similar amounts against the dollar, the yen's real effective exchange rate has risen 27%, the mark's just 19%. The difference reflects Japan's closer trade ties with countries whose currencies have weakened. Almost 40% of Japan's total exports went to the United States last year, but only 11% of Germany's. A further 14% of Japan's exports went to the Asian NICs, whose currencies have broadly followed the dollar. Nearly 70% of Germany's 1986 exports went to other European countries, lessening its direct exposure to dollar depreciation.

The protracted weakness of U.S. exports through most of 1986 disguised what would have been a more drastic decline had the dollar remained at its high levels of 1983-85. It need not preclude substantial export gains this year and next. Still, the benefit of dollar depreciation remains unclear: the fact that export volume has begun to rise only in the most recent months suggests a weaker response than generally assumed and one with rather long lags in a sluggish world environment.

Inadequate adjustment assured

The G-5 view of the "fundamentals" does not establish that an acceptable or sustainable international distribution of trade and current account imbalances is in the bag. Although the dollar has fallen from its peak by over 40% against the yen and the mark, the broad index of the dollar that includes 18 industrial- and 22 developing-country currencies shows little more than a 20% inflation-adjusted decline. Moreover, the index remains more than 10% above its 1980 average (see Table 3).

If the dollar remains at current

Table 2

Real GNP

percent change, seasonally adjusted annual rates

	1982Q3-1984Q2	1984Q2-1985Q4	1985Q4-1986Q4
United States total	5.9	2.6	2.1
*Domestic**	7.7	3.5	2.6
*Foreign**	—1.8	—0.9	—0.5
Japan total	4.2	4.6	1.3
*Domestic**	2.6	3.9	3.1
*Foreign**	1.6	0.7	—1.8
Germany total	2.1	3.1	2.6
*Domestic**	1.7	2.4	3.3
*Foreign**	0.4	0.7	—0.7

*Contributions as percent of beginning period GNP.

Table 3

Dollar exchange rates

units per dollar, except as noted

	Feb 27, 1987	% change in dollar since Feb 85 (avg)	1980 (avg)
*Nominal effective**			
Traditional	96.7	—29.1	6.6
*Real effective**			
Traditional	92.6	—29.9	3.0
Broad	101.2	—23.0	11.8
Dollar vis-à-vis			
Japanese yen	153	—41.0	—32.5
German mark	1.83	—44.4	0.7
French franc	6.08	—39.6	43.9
British pound	1.55**	—41.0	50.3
Italian lira	1299	—36.0	51.7
Canadian dollar	1.35	—1.4	15.5

*1980-82=100; traditional: dollar against currencies of 15 other industrial countries; broad: dollar against currencies of 18 other industrial countries and 22 developing countries.
**Dollars per pound.

levels indefinitely, Table 4 projects that the $166 billion deficit on the CIF valuation in 1986 should narrow to about $140-$145 billion this year and perhaps as low as $120 billion in 1988. Thereafter, however, the trade deficit would likely begin to widen again. Manufactures trade would suffer eroding U.S. competitiveness as domestic costs outpace those of Japan and Germany. Also, petroleum trade is likely to deteriorate. The 1986 decline in U.S. production, coupled with rising consumption and stockpiling, drove up gross oil imports to 6.6 million bpd, 27% above the 1985 level. The oil import bill could rise $30 billion or more by the end of the decade (see Table 5).

The prospects for the current account are largely dictated by those for the trade account, direct investment income, and net interest payments to foreigners associated with the U.S. shift into debtor status. U.S. net external debt, including direct investment at book value, stood around $260 billion at the beginning of 1987. Direct investment income may show little change this year but, due to the debt buildup, net interest payments of $28 billion could be some $12 billion higher than in 1986. Hence the $20-$25 billion trade improvement may result in no more than a $10 billion reduction in the current account deficit.

Indeed, the current account deficit could begin widening again toward the end of next year. On the optimistic assumption of 5.5% Treasury bill rates, it may approach $160 billion annually by 1990, with net interest payments to foreigners exceeding $40 billion, and the accumulated net debt $840 billion. These figures would run higher if interest rates rise. Moreover, the examples of the United States in 1971, New York City in 1975, and Mexico in 1982 underline that financial market tolerance has its limits, unpredictable though they be, especially if confidence weakens for any reason.

The clear message of this U.S. trade, current account, and debt outlook (and its counterpart implication for the surplus countries) must be that present exchange rates, given existing expectations for U.S. and foreign economic growth, add up to inadequate and probably transient improvement in the U.S. imbalance.

More substantial and sustained correction will require some combination of a still-lower dollar and a shift in relative economic growth. Historically, a stable dollar has been consistent with a satisfactory U.S. trade balance performance only when domestic demand growth in other industrial countries handily exceeded that in the United States, as in the 1960s. In the 1970s, U.S. and foreign domestic growth were more nearly equal and a depreciating dollar served to shore up the U.S. trade balance. Between 1982 and 1985, U.S. domestic growth outpaced that of other industrial countries by a cumulative 9.5%. The consequences for the U.S. trade balance now could be offset either by sufficient additional dollar depreciation or by undoing and reversing the *accrued* domestic demand gap. The gap was little changed in 1986 and is projected to shrink only slightly in 1987.

By itself, an increase in foreign economic growth relative to U.S. growth by one percentage point per annum would benefit the U.S. current account by about $25 billion within four years. This sounds less than impressive, given that a 10% depreciation of the dollar would yield a $40 billion benefit. But faster foreign economic growth pays off better when working *together* with a lower dollar. After all, a lower dollar crimps foreign exports. As Japan and Germany are presently discovering, export weakness ripples

Table 4

U.S. current account outlook

billions of dollars, on present economic growth prospects and with no further dollar depreciation

	1986	*1987*	*1988*	*1990*
U.S. current account	—145	—135	—120	—157
Trade balance (CIF)	—166	—145	—120	—165
Net investment income	16	4	—5	—6
Direct investment	32	32	35	38
Interest	—16	—28	—40	—44
Other invisibles	5	6	5	2
*Net foreign debt, year end**	257	400	530	843

*The net investment position of the United States with sign reversed. This projection assumes that the net equity position of the United States remains unchanged from end-1985 levels and that the counterpart of the current account deficit is a buildup of interest-paying U.S. liabilities abroad.

Table 5

U.S. oil demand and supply

millions of bpd, except as noted

	Average 1980-81	*1985*	*1986*	*1990*
Consumption	16.6	15.7	16.2	16.9
Production	—10.2	—10.6	—10.3	—9.3
*Other domestic supply**	—0.6	—0.7	—0.8	—0.8
Stock change	0.0	—0.1	0.2	0.0
Net imports	5.9	4.3	5.3	6.5
As percent of consumption	36	27	33	42
*Gross imports***	6.6	5.2	6.6	8.3
Average price, FOB (dollars per barrel)	32.8	26.6	14.6	22.0
Value (billions of dollars)	78.5	50.5	35.3	66.6

*Processing gain and unaccounted oil.
**Balance of payments basis.

through the domestic economy, depressing its growth and import demand. Although proponents of a stable dollar correctly point out that these ripple effects limit U.S. trade improvement, they could be counteracted by steps boosting foreign domestic demand. A successful boost not only can sustain and enhance foreign economies' growth and import demand but also divert foreign exporters to their own domestic markets, curbing their incentive to hang on to U.S. market share at whatever cost. Accordingly, faster foreign economic growth — or, conversely, lower U.S. growth or recession — increases the U.S. trade improvement that can be expected from any given degree of dollar depreciation. Table 6 illustrates the magnitudes involved, presenting possible scenarios for the dollar and both U.S. and foreign economic growth consistent with working the U.S. trade and current account deficits distinctly below the $100 billion mark by 1989.

If the dollar is held at current levels, meeting the trade target would require holding the U.S. economy in virtual recession while simultaneously stepping up foreign growth — to a pace that seems out of the question amid prevailing perceptions of the politically and economically feasible. Only if the dollar comes down substantially further can the trade target be achieved without forcing a U.S. recession or conjuring up an acceleration of foreign growth beyond the economically practicable. Yet a further drop in the dollar is widely assumed dangerous, and growth-boosting initiatives at best problematic. Given the gravity of the U.S. trade problem, neither assumption should pass unchallenged.

A "free-fall" or a "hard landing"?

Arguments for dollar stability often invoke the specter of a dollar in "free-fall," throwing the U.S. and world economies into a "hard landing." Whatever their emotive force, these terms typically go ill-defined and are open to misunderstanding.

The experience of the past two years can be fairly characterized as a "soft landing" adjustment from acute currency misalignment. Despite the dollar's substantial fall, the world has managed a modicum of economic growth and both inflation and nominal interest rates have fallen in the major industrial countries. Long-term interest rates in the key currencies have dropped sharply. Stock markets have soared. Dollar interest rate differentials against rates in strong currencies have narrowed (see Chart 4).

Interest differentials between currencies reflect anticipated exchange rate movements and risk premiums. In February 1985, at the dollar's peak, interest differentials discounted a dollar decline to DM2.27 and Y168 within ten years (see Table 7). Twelve months later, in February 1986, the corresponding ten-year break-even rates were DM1.81 and Y143. Thus, the dollar has passed the first break-even levels for both the mark and the yen, and for the mark has come close to the second. Obviously, the dollar's decline early this year eclipsed short-term interest differentials.

Despite contrary fears the dollar's decline has precipitated no adverse reaction in interest differentials. It has been possible because the dollar's cumulative decline occurred through successive episodes of "free fall," whereby the dollar dropped quite abruptly each time to a new level that did not inspire perceptions of imminent further downward risk. Indeed, this pattern and the cumulative scale and speed of the dollar's decline have done much to facilitate the global soft landing to date.

Table 6

Adjustment choices

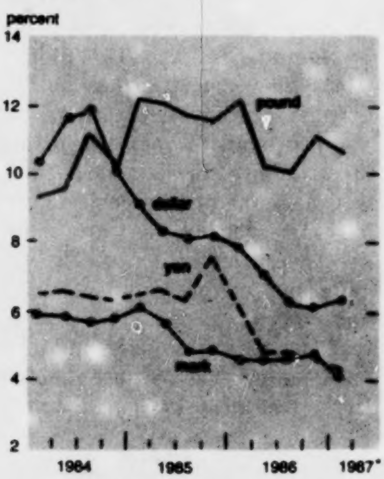
combinations of economic growth and exchange rates that will reduce the U.S. trade deficit, CIF, below $100 billion in 1989

Exchange rates, end-1988				
Yen/$	154	154	125	125
DM/$	1.85	1.85	1.60	1.60
Real GNP growth % per annum, 1987-89				
Japan	5.4	6.3	4.3	5.5
Germany	5.4	5.7	3.4	5.0
United States	1.0	2.0	2.0	3.0

Chart 4

Nominal interest rates

3-month Eurocurrency deposit rates



*Latest plotting, February 1987.

But the soft landing for the dollar could be transformed into the dreaded "hard landing" of rising U.S. interest rates and recession if, at some unknowable point in the future, investors seek to adjust their portfolios to perceptions of *heightened* dollar risk. Were the expectation to take hold of a chronically declining dollar — through official attempts to engineer a "controlled fall" or to stabilize the dollar at a level viewed by the markets as untenable — interest-rate differentials would be bound to react. U.S. interest rates would likely run substantially higher, and foreign rates only a little lower. The upshot would be the hard landing, a U.S. recession and, in due course, a worldwide downturn. The present environment of unresolved trade imbalances and inadequate policy responses by the major economies dooms long-run stabilization of the dollar at present levels. It is better that improvement in national growth policies be set in motion as soon as possible, with the dollar being allowed to attain a competitive level quickly thereafter.

Inflation worries

An upsurge in U.S. inflation is among the dangers most often imputed to a further dollar decline. Some will point to January's 8% annualized inflation rate in the consumer price index (CPI) and upturn in interest rates as proof that inflation already is taking off. Fortunately, there are weighty reasons to deem the January inflation figure an aberration. The global economy has been disinflating throughout the 1980s. In 1986, the fourth year of recovery, the rise in the GNP deflator for all industrial countries was 3.5% in local-currency terms, down from 4.2% in 1985. The U.S. deflator decelerated from 3.4% to 2.6%. Real interest rates remained high in all major countries. They actually rose in some (see Chart 5), and in the United States continue at inflation-restraining levels. Demand pressure is slight on available production capacity in industrial countries generally, including the United States: since the last cyclical peak, at the beginning of 1981, OECD industrial production has risen a slim 2% annually on average; real GNP growth has been 2.5%, well below the 3% or higher growth of output potential. The growth surge widely projected after oil prices collapsed a year ago never developed, the price stimulus to demand being offset by restrictive economic policies and unexpectedly high consumer savings in Japan and Europe. In fact, OECD real GNP grew 2.5% last year — *below* the 3% growth in 1985.

U.S. real GNP growth has held around 2.5% per annum for the past two and a half years. U.S. industrial production, which has only recently perked up, has advanced little more than 3% above the mid-1984 level. U.S. manufacturing is most recently reported operating at just under 80% of capacity, down from 82.8% in the summer of 1984 and well below the level traditionally associated with the outbreak of demand-pull inflation. In fact, it is singularly hard to identify instances of bottleneck in the U.S. economy at present. The CPI rose 1.5% over the past twelve months (see Table 8). The index was depressed by the fall in energy prices during the first half of 1986 and was pushed up by their recovery during the second. Excluding erratic food and energy prices, there is little sign that inflation is accelerating above the 3.5%-4.5% range that elicited broad satisfaction before oil prices crumbled.

Although the 1986 rise in gold prices was bound to set inflation tongues wagging,* commodity

---

*The gold price soared from $325 per ounce at the end of 1985 to the $420-$430 range last October, reflecting Japanese buying for special commemorative coinage and the dollar's decline (in mark or yen terms the price upturn has been modest). Partly on the prospect of increasing supply from new projects in a number of countries, the price in real terms now stands 60% below its 1980 highs.

Table 7

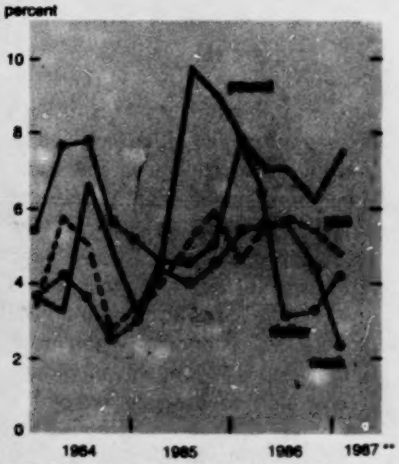
Break-even exchange rates

	One year	Three years	Ten years
Government bond yields by maturity, percent per annum			
February 28, 1985			
United States	9.73	11.02	11.82
Germany	6.73	7.03	7.67
Japan	6.65	6.84	7.16
February 27, 1986			
United States	7.46	7.81	8.14
Germany	4.37	5.06	5.92
Japan	5.35	5.46	5.63
February 26, 1987			
United States	5.87	6.52	7.20
Germany	3.98	4.75	6.10
Japan	4.13	4.32	4.96
Implied break-even exchange rates			
February 28, 1985			
DM/$ (spot 3.34)	3.25	2.99	2.27
Yen/$ (spot 259)	252	231	168
February 27, 1986			
DM/$ (spot 2.2)	2.17	2.10	1.31
Yen/$ (spot 180)	177	169	143
February 26, 1987			
DM/$ (spot 1.83)	1.79	1.74	1.65
Yen/$ (spot 153)	151	144	124

Chart 5

Real interest rates

*3-month Eurocurrency deposit rates deflated by consumer prices**



*The inflation adjustment uses centered 6-month rates of change in consumer prices, including projections for 1987 when necessary.

**Latest plotting, February 1987.

prices in general show no great buoyancy. Food prices have continued their long-standing erosion. Although industrial commodity prices climbed markedly during the last months of 1986, they have stabilized in recent weeks and are far below their early-1980s peaks. The January run-up in oil prices stemmed primarily from stiffening OPEC pricing and production discipline. However, stabilization around $18 per barrel still remains only a goal, not an accomplished fact. In all, given the dollar's depreciation since 1985, the major conclusion from commodity prices must be that the global excess of capacity and production over demand is more profound than virtually all analysts have conceived.

U.S. non-oil import prices accelerated considerably during 1986 but their 6% cumulative rise from their 1985 lows has been far short of the dollar's depreciation. Thus the "pass-through" of dollar depreciation into U.S. import prices has been both tardy and incomplete. Several reasons may be cited. First is the time lag between contract and delivery. Second, lacking robust alternative export or domestic markets and unwilling to give up U.S. market share, foreign exporters often have chosen to let their formerly fat U.S. profit margins take the strain of the dollar's fall. Third, U.S. producers are switching their outside sourcing from areas disadvantaged by the dollar's fall — principally, Japan and continental Europe — in favor of the Asian NICs and the like, or, in what may prove a gathering trend, to U.S. locations. Exchange rate pass-through will remain incomplete for the foreseeable future. However, it will increase as imports recently contracted are actually delivered, as is inevitable and also desirable, because currency depreciation can yield its full benefits only if relative prices adjust decisively. Now that import profit margins are much compressed, it can be expected that any further dollar depreciation will pass through more fully than the depreciation to date.

The outlook for the general U.S. price level hinges on domestic price response to import prices and the concurrent behavior of "domestically generated" inflation. Now that non-oil imports amount to 8% of GNP, compared with 6% in 1980 and 5% ten years earlier, a tighter link may be developing between domestic and import pricing. But at present, however tight the link may be in certain sectors, it still appears loose for U.S. industry as a whole. Thus, despite the acceleration in non-oil import prices, U.S. producer prices, excluding food and energy, remain subdued: intermediate goods prices are up just 0.6% over the past twelve months; finished goods prices are up some 2.8%, concentrated in the automobile industry.

At the consumer level, goods prices generally, even excluding energy, must be characterized as soft. Most encouraging, the 4.2% 1986 increase in services prices was the lowest since the recession year of 1982 and dramatically below the 1980 peak rate of over 14%. Moreover, since many services are not exposed to international competition, they feel little upward price pressure from the dollar's fall. Services dominate goods in U.S. economic life, as is recognized in the newly revised CPI, and their pricing imparts substantial inertia to consumer prices overall.

Of course, whatever the general picture, some prices show sizable increases. Often these represent no more than a *relative* price level correction, responding to sectoral cyclical recovery or external pressure associated with the dollar's decline. In other cases, rising prices correspond to long-established inflationary proclivities, such as in health

Table 8

U.S. inflation

selected indices, annual rate percent changes*

	Latest 12 months	*Latest 6 months*	*Latest 3 months**
GNP deflator			
Implicit	2.6	2.4	0.5
Fixed weight	2.7	2.3	2.7
Non-oil imports	3.3	5.6	8.3
Consumer prices	1.5	3.5	4.4
Excluding food and energy	3.8	4.0	4.2
Goods	—1.3	3.1	4.9
Excluding food and energy	1.4	2.4	3.2
Services	4.3	4.0	4.3
Excluding food and energy	5.1	4.9	4.7
Producer prices			
Finished goods	—1.5	0.7	2.9
Excluding food and energy	2.8	2.7	3.7
Intermediate goods	—3.2	—1.9	1.0
Excluding food and energy	0.6	0.9	1.7
*Commodity prices***	—9.2	8.1	12.7
Food	—9.1	—6.0	—3.2
Industrials	—5.9	9.0	26.8
Gold	16.6	32.5	—14.9

*Data are through January 1987, except for commodity prices (February) and the GNP deflators (1986 Q4).

**Commodity Research Bureau.

care, where market discipline is weak, and in automobiles, where protection from imports has underwritten ingrained habits and the domestic producers evidence little stomach for the effort to reclaim home-market share.

Wage behavior provides the most persuasive evidence that U.S. inflation will remain well contained on the whole for some time to come. Although no one can be happy with trends in U.S. labor productivity — witness the first estimates for 1986, which show a rise of just 0.7% economywide and 2.7% in manufacturing — labor costs, by and large, are not generating a major push on total costs. Gains in adjusted hourly earnings continue on a modestly downward trend (see Chart 6). Standard explanations stress the decline in union power and representation; deregulation in such fields as transport, telecommunications, and finance; and the spread of flexible work practices, especially through contracted-out and part-time employment. While the dollar was rising, its strength was seen as a direct discipline on U.S. wage behavior and profit margins. Despite the dollar's now two-year-old slide, the discipline lives on. Consciousness of global competition has taken hold among U.S. management and labor. It will remain potent as long as import penetration remains anywhere near present levels.

Can sustained U.S. wage moderation be taken for granted? One worry comes if protection from imports becomes too readily available: formal and informal protection of the U.S. automobile industry during the 1980s seems to have held back productivity improvement and has sustained wages at uncompetitive levels, as has been true for a much longer period in steel. A second concern stems from the celebrated success of the U.S. economy in job creation. At 6.7%, the U.S. unemployment rate now lies within the zone of contention as to just where the U.S. NAIRU — the nonaccelerating inflation rate of unemployment — now stands. The 1970s' experience encouraged the pessimistic view that the U.S. NAIRU had risen to 7%. Recent evidence, principally associated with a more experienced and skilled labor force, suggests the rate has fallen in the 1980s, to 6% or even 4.5% by OECD estimates.

It would be rash to expand U.S. economic activity so much as to mop up all unemployment above the most favorable reading of the NAIRU. The inflationary risk would be all the greater if other industrial countries were simultaneously to boost their own economic growth. Near-term goals for U.S. real GNP growth therefore should not be pressed materially above the 2.5% pace that has proven consistent with both a gradual fall in unemployment and continuing wage moderation. Provided this moderation is maintained, the relative price adjustments essential to a competitive U.S. position in world trade can be completed with only temporary upward pressure on U.S. inflation.

The twin U.S. deficits and economic growth

Anxieties about an inflationary hard landing may underlie arguments that the dollar should be stabilized. From here on, it seems, boosting national competitiveness in the sense of productivity growth and reducing the federal budget deficit are to form the U.S. contribution to global international adjustment. Stepped-up U.S. productivity growth is obviously in the interest of improving long-term living standards and could mitigate the pain of trade adjustment. But there should be no illusion that productivity growth will

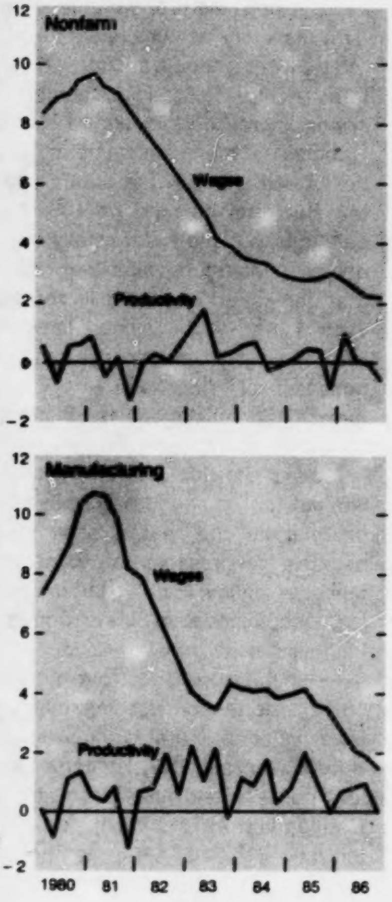


Chart 6

U.S. wages and productivity

percent change from preceding year

of itself work quick miracles for the trade balance.

In fiscal policy, there is little doubt that the U.S. posture has already assumed a restrictive course. The federal deficit for the first four months of the current fiscal year came in $40 billion less, at an annual rate, than in the year-earlier period. A fairly conservative assessment of budgetary actions already in place or in the works would put the likely 1987 calendar-year deficit at $170 billion, 3.8% of GNP and a full percentage point below last year's.

The fiscal implications for the U.S. trade deficit are less certain, contrary to the widespread catechism of one-to-one connection. The catechism flows from the accounting identity that the current account surplus or deficit equals the excess or deficiency of domestic private and public saving relative to domestic investment. Reduced public dissaving through budget deficit reduction therefore shrinks a current account deficit, provided the balance of *domestic private* saving and investment remains unchanged.

Nonetheless the self-evident relationship so often asserted turns out anything but simple and predictable in practice — and is not at all guaranteed to be positive. The fiscal balance is not the sole arbiter of the external balance, nor should it be overlooked that the fiscal posture exerts powerful influence on economic activity generally and saving and investment specifically — and thereby on economic growth. Of course, saving, investment, and growth also are affected by domestic monetary policy, both monetary and fiscal policies abroad, and events that may be beyond policy control, such as terms of trade shocks and, to a major extent, exchange rate movements. Accordingly, if fiscal contraction is to succeed in reducing a current account deficit *without* depressing economic growth, there must be an offset from other macroeconomic policies either at home or abroad. The appropriate degree of domestic monetary relaxation will be contingent on foreign macroeconomic policies and performance. Adjustment of policies abroad may have much to contribute to a mutually constructive, growth-promoting resolution of international imbalances.

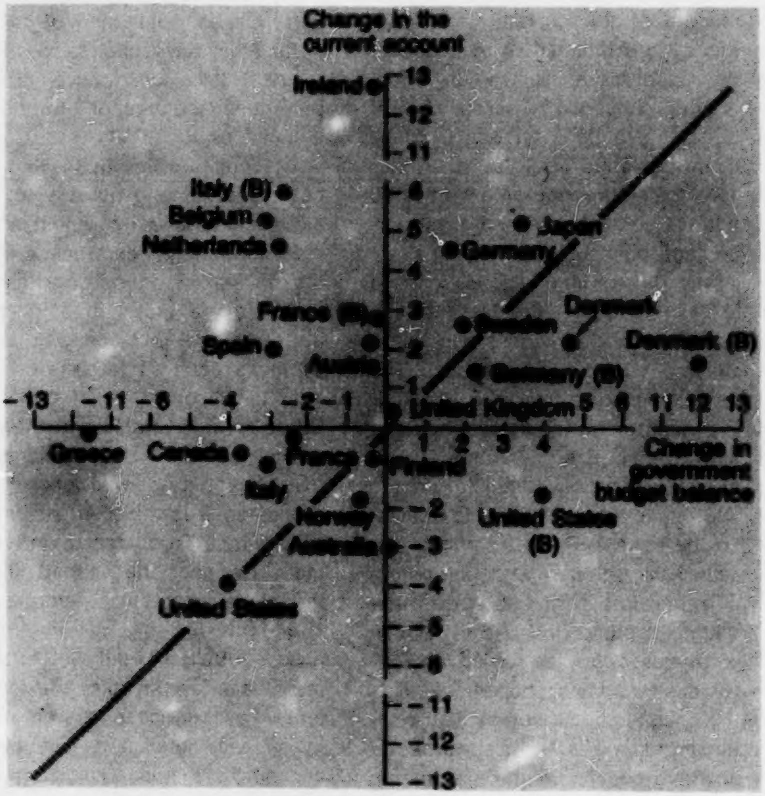
The complexities in the link between budget and current account adjustment are richly evident in both U.S. and foreign experience. Over the 1979-1986 period, as link enthusiasts are quick to emphasize, the U.S. fiscal and current account balances each shifted sharply into deficit, by some 4% of GNP. But Chart 7 demonstrates that the one-to-one positive U.S. association over this period was only rarely replicated elsewhere in the industrial world. True, Japan and Germany fall near the dashed line in the chart, expressing approximate one-to-one linkage. But in several cases — Belgium, the Netherlands, and Spain, for example — fiscal and current account changes were negatively associated. In Greece, a widening of the fiscal deficit by over 11% of GNP left the current account balance completely unaffected. Ireland's current account strengthened by over 12% of GNP, with practically no fiscal improvement. Furthermore, as the chart shows by selected examples from the 1970s, for a number of countries — including the United States — the direction of fiscal/external balance association has been unstable.

Looking more closely at past U.S. experience, in 1975 the current account attained a record surplus in terms of GNP (see Table 9), not least because of the steep, post-oil-shock recession and correspondingly low import demand. Yet the general government budget deficit — which covers federal, state, and

Chart 7

Budget and current account balances

*as percent of GNP 1978-86**



*The points plotted are the changes (from beginning to end of period) in the ratio of current account and general government balances to GNP. A plus sign indicates a move toward surplus. Earlier periods are shown for countries followed by (B). They are: 1974-78 for United States and Italy; 1974-79 for Denmark and France.

local results — ballooned to over 4% of GNP. U.S. fiscal policy then was tightened: the cyclically adjusted budget balance moved toward surplus by 1% of GNP in 1976 and cumulatively by almost 3% through 1978. Despite the fiscal tightening, U.S. economic activity and income growth recovered and the current account deteriorated in 1977-78 to what were then record deficits.

The explanation for this episode of negative linkage between U.S. fiscal and current account trends lies principally in the Federal Reserve's monetary policy, which turned unintentionally easy toward the end of Arthur Burns' tenure. Although nominal interest rates rose, giving the appearance of a tight monetary posture, real interest rates were negative from 1976 through late 1978. Total domestic saving increased, thanks to rising incomes in the private sector and deficit reduction in the public sector. But total demand on U.S. capacity grew rapidly, especially from domestic sources, with the result that domestic investment increased even faster than saving. Imports rose strongly, but exports less so because of the relatively slow growth of domestic demand in other industrial countries.

Thus, a shortfall in foreign growth worked to compound a U.S. fiscal/external linkage that already was negative for reasons of domestic monetary policy. Had the latter been less accommodative, lower domestic investment growth would likely have engendered better current account performance, accompanied by lower inflation and a stronger dollar — but lower real GNP. Tighter monetary policy would have been amply justified in 1978, when capacity utilization hit 87.5% (as noted earlier, it is under 80% today). In the event, decisive monetary restraint was deferred until 1979. In conjunction with a weaker dollar and a pickup in foreign economic growth, this monetary restraint produced a current account surplus by 1980 — and without fiscal contraction.

Italy's 1974-78 experience likewise merits recall. Although its budget and current account balances moved in the same direction at times, for the period as a whole they moved oppositely. In 1974 the lira became overvalued. The current account deficit shot up to 4.7% of GNP in response to rapid eco-

Table 9

Saving, investment, and current account

percent of GNP (GDP for Italy)

		Domestic saving		
	Current account	Total	Budget balance	Domestic investment
United States				
1975	1.1	14.9	—4.1	13.7
1978	—0.5	18.2	—0.0	18.6
Italy				
1974	—4.6	21.9	—7.0	26.6
1978	2.4	22.4	—9.7	20.0
Japan				
1979	—0.9	31.5	—4.8	32.5
*1986**	4.4	32.1	—1.5	27.7

*Estimated.

nomic growth, exploding wages, and the run-up of oil and other commodity prices — yet the budget deficit increased hardly at all. At creditors' insistence, Italy's short-term interest rates were raised to over 20% in June 1974 and taxes by 2.5% of GNP soon after. In 1975 the levels of real GNP plummeted by 3.5% and industrial production by over 9%, inflation halved by mid-year, and the current account deficit almost disappeared. But the fiscal/external link turned out negative. Contrary to the current account improvement, the budget deficit rose from 7% of GNP in 1974 to 11.7% in 1975, reflecting both recession and the deliberate fiscal expansion undertaken that August. This expansion helped precipitate another exchange crisis in January 1976. Both monetary and fiscal restraint were reapplied and the current account swung into surplus in 1977-78. This time, the fiscal/external link turned out positive, but there was strong simultaneous support from monetary policy, a sharp depreciation of the lira, and quickening economic growth in export markets.

Although Japan's post-1979 experience suggests a one-to-one positive association between fiscal restraint and current account improvement, it also demonstrates the critical importance of external factors. Between 1979 and 1986, Japan's cyclically adjusted budget balance contracted by 4% of GNP and the current account soared into outsize surplus. Net export strength allowed Japan's real GNP growth to exceed that of domestic demand for seven consecutive years. From early 1983 through mid-1985, exports to the United States accounted for an astonishing 40% plus of Japan's real GNP growth, rocketing over 100% in real terms. More recently, with the slowdown in U.S. demand and a stronger yen both hitting exports, Japan is feeling the negative consequences of fiscal restriction full force. Present budget policies point to a further fiscal contraction this year, by a cyclically adjusted 0.6% of GNP — despite ever-weakening growth prospects. Unless a large supplementary budget is swiftly enacted, or Japan's export markets grow unexpectedly fast, 1987 is likely to see a further reduction in the budget deficit in conjunction with a diminished external surplus — a negative link.

In assessing the value of fiscal restraint for tackling today's U.S. external imbalance, it is vital to digest the lessons from the U.S., Italian, and Japanese experiences just cited. These make clear that external factors and domestic monetary policy are crucial in determining not only the current account payoff from fiscal restraint but also its cost in terms of economic growth. The external factors facing the United States are less than propitious. Barring major policy changes abroad, of which the G-5 communiqué provides scant promise, real GNP growth in other industrial economies is likely to remain anemic. The dollar's depreciation to date should shore up U.S. global market share somewhat. But, in view of its concern about further dollar erosion, the Federal Reserve cannot be relied upon to ease monetary policy and offset the recessionary implications of fiscal tightening. In all, even if U.S. fiscal restraint helps narrow the trade deficit, it is an open question whether this will occur without detriment to U.S. and global economic growth.

G-5 at sixes and sevens?

The G-5's February pronouncement merits support in two important particulars: the recognition that international trade imbalances pose serious risks; and the judgment that enduring exchange rate stability will be a product of supportive fundamentals, not central bank intervention or target zones.

But the G-5 revealed itself at sixes and sevens, not only in the matter of Canadian and Italian participation, but, more importantly, in its professed view of the fundamentals — that actions to date and promised have already brought the fundamentals sufficiently into place to warrant exchange rate stability around current levels for the major currencies. With world economic growth stumbling and LDC financing issues once again on the boil, complacency is not in order. To stabilize the dollar too long at present levels risks higher U.S. interest rates, U.S. recession, and renewed world deflation. This describes the hard landing that everyone hopes to avert, not the maintenance of the soft landing that is so clearly in the general interest.

Of course, it is tempting to procrastinate. The ease of financing the U.S. current account deficit so far — thanks to a world of integrated capital markets, ample liquidity, and an abundance of savings seeking attractive investment outlets — suggests the deficit can be financed for quite some time ahead. In addition, more rapid adjustment could harm those many countries — Japan, Korea, and Taiwan, to name but a few — that have relied excessively on exports to the United States for economic growth at home; even some U.S. exporters are worrying about an eroding ability of foreign customers to purchase U.S. products. Besides, it will be said that the United States has more certain or better ways than dollar depreciation to tackle the trade deficit: for example, by protectionist trade legislation, measures to strengthen productivity and competitiveness, and — most of all, to many minds — by fiscal rectitude. Yet, U.S. actions alone, as the body of this article has demonstrated, are unlikely to yield a swift and adequate result, and indeed risk the opposite.

Since international imbalances are every bit as dangerous as the Group admits, they need to be tackled as a matter of *urgency*. Concrete policy changes are required of a kind and degree that offer convincing promise of accomplishing a satisfactory resolution of the imbalances, not merely their token alleviation. Thus the U.S. trade deficit needs not just to be steered onto a declining trend but to be cut back by $100 billion per annum, with commensurate implications for the surplus countries. No commitment to prompt policy changes adequate to this end is to be found in the G-5 communiqué, nor in more recent official policy expositions.

The U.S. trade deficit is an intrinsically *international* issue. Not only is the scale of the problem beyond the unaided grasp of even the world's number one economy, but also the problem originates less in expansionary U.S. policies than in lagging growth in other industrial economies, biased growth in the Asian NICs, prolonged currency misalignment, and the LDC debt problem. A balanced international approach recognizes these multiple sources of the U.S. trade problem and urges steps to tackle all, without disproportionate weight on any single target. As is by now familiar, such an international approach looks to contributions from the United States, in the form of fiscal restraint; from other industrial countries and the Asian NICs, through expansionary domestic policies; and from exchange rate adjustment to handle that major part of the job that cannot sensibly be accomplished by twisting the differential between U.S. and foreign economic growth. Regrettably, after two years of fruitless prodding of Japan and

Germany to put aside their mercantilist or nationalist traditions and come to terms with their growth and adjustment responsibilities, it becomes questionable whether much good will come of efforts to coordinate actions internationally.

While continuing to pursue the international approach, the United States should now move ahead forcefully *on its own*. First, productivity and competitiveness initiatives, including efforts to open up export markets abroad, may have much to commend them for alleviating the stress on domestic living standards inherent in trade deficit correction and for strengthening long-term U.S. economic performance generally. But the near-term benefit for U.S. trade would be marginal since the imbalance is fundamentally a macroeconomic phenomenon. Second, on the fiscal front, the United States should stick to the gradualist profile now in the works for federal deficit reduction, buying genuine spending restraint with modest consumer imposts on such items as alcohol, tobacco, and gasoline, totaling $10-$20 billion. Third, to alleviate the contractionary fiscal influence on U.S. economic growth, Federal Reserve policy should provide positive offset. The risk that careful monetary easing will unleash inflation is a lesser concern than that of inadequate U.S. economic growth and trade adjustment. As the U.S. policy mix shifts, the dollar should be allowed to fall, perhaps by as much as 15% on the *broad* effective index.* This should be welcomed as a tool to force more adequate U.S. trade and current account adjustment. The extra dose of dollar depreciation would erode the exports of surplus countries and demonstrate, through reality rather than exhortation, that their domestic policies need overhaul. The more they ultimately beef up their domestic growth, the less their currencies will need to rise.

In sum, the United States needs to be crystal clear, both to itself and to trade partners, about one of its most urgent national objectives: to bring down its trade deficit by at least $100 billion before the end of this decade, with minimal resort to protectionism and without precipitating recession at home or abroad. At this stage, until such time as the requisite changes in macroeconomic policies are well in hand, overemphasis on long-term dollar stabilization would distract from the fundamental adjustment objective. Clarity and determination on these points should help preserve confidence and improve the chances that the further fall in the dollar that is a key ingredient of successful adjustment will not provoke a hard landing. By contrast, obfuscation and procrastination can only undermine confidence. Worse, they heighten the risks that the world economy will fall victim to the resurgent tide of protectionistic nationalism now evident in Japan, Europe, and a number of the LDCs — and, not least, in the United States itself.

Statistical appendix

For key to data in tables see pages 22 and 23.

Effective exchange rates — industrial countries, 14

Real effective exchange rates — developing countries, 15

International banking market size, 15

International bond issues and bank credits, 16

Eurocurrency deposit rates, 17

International bond yields, 17

Central bank discount rates, 18

Day-to-day money rates, 18

Treasury bill rates, 19

Representative money market rates, 19

Commercial bank deposit rates, 20

Domestic government bond yields, 20

Commercial bank lending rates to prime borrowers, 21

Domestic corporate bond yields, 21

Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

***A decline of this magnitude cannot be accomplished solely by pressuring the Asian NICs and Canada to revalue on the grounds that their currencies have barely participated in the overall adjustment of the dollar so far and, in the case of the NICs, that they are running huge current account surpluses. Even if, at the extreme, one hypothesizes revaluations against the dollar of 40% for the NICs' currencies and 8% for the Canadian unit, the yen and the European currencies still would need to rise 10% or more. It should be noted that the dollar remains above the levels of Y130 and DM1.55 that would replicate today the purchasing power relationships that prevailed in the fall of 1978. Moreover, since U.S. inflation is projected to run higher over the next few years than in Japan and Germany, further nominal dollar depreciation will be needed just to maintain the present level of U.S. competitiveness.**

Effective exchange rates — industrial countries

Index numbers, 1980-82 average=100.

Nominal against 15 other industrial-country currencies

		United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
1931		99.5	100.2	105.8	104.0	100.4	97.2	98.8	102.1	98.9	101.8	97.1	99.4	98.3	99.2	100.1	103.3
1982		109.8	99.4	98.6	100.1	93.1	102.8	92.8	98.1	101.7	92.3	102.7	94.1	106.3	95.7	101.7	92.8
1983		114.2	100.8	107.8	92.0	87.3	107.6	90.3	91.6	103.6	90.0	105.0	78.4	111.5	96.4	99.4	82.2
1984		122.4	97.3	113.0	94.2	84.4	107.4	86.7	88.1	103.6	88.9	104.0	77.4	110.5	93.9	97.8	84.3
1985		127.1	92.8	115.8	76.3	85.4	107.6	82.1	88.2	104.2	89.5	104.0	75.6	109.5	95.0	95.6	83.9
1986		106.0	87.6	150.1	61.4	87.4	116.1	82.9	80.7	107.8	92.9	110.3	73.4	118.1	99.7	89.3	81.6
1986																	
September		102.2	87.1	160.8	55.1	86.5	118.3	83.9	77.5	108.5	93.8	112.0	73.7	122.7	100.5	86.6	81.0
October		102.1	87.0	158.4	56.8	87.3	119.4	84.4	74.4	109.0	94.3	112.9	73.4	122.3	102.1	85.9	80.8
November		103.5	87.4	152.7	58.1	87.4	119.5	84.4	75.1	109.1	94.2	112.9	72.6	120.4	102.1	84.7	80.8
December		102.5	87.6	152.4	59.0	87.5	120.2	84.6	75.0	109.4	94.5	113.3	72.6	120.2	102.5	83.9	80.5
1987																	
January		98.5	88.1	156.1	57.2	87.4	122.2	84.0	74.8	110.4	95.9	114.9	71.9	121.7	103.9	83.8	79.9
February		69.9	89.7	156.4	57.2	87.9	122.7	63.9	74.8	110.7	96.4	115.0	71.3	121.4	104.6	84.4	80.0
January	*30*	96.6	89.0	157.3	56.5	87.9	123.0	84.1	74.5	110.8	96.5	115.4	71.0	122.3	104.7	84.0	79.7
February	*6*	96.8	89.8	156.7	57.1	87.8	122.7	83.9	74.4	110.7	96.5	115.2	71.2	121.7	104.6	84.5	79.9
	13	96.9	89.2	156.5	57.1	88.8	122.8	84.0	74.4	110.8	96.6	115.2	71.2	121.5	104.9	84.5	79.9
	20	96.9	89.9	156.2	57.0	87.8	122.6	83.9	75.0	110.7	96.4	114.9	71.4	121.2	104.7	84.7	80.1
	27	96.8	89.6	156.3	57.6	87.7	122.4	83.8	75.8	110.6	96.2	114.7	71.3	121.3	104.5	84.4	80.3
March	*6*	96.7	89.7	156.1	58.0	87.5	122.0	83.5	77.2	110.4	95.9	114.4	71.2	121.1	104.2	84.7	80.5

Real against 15 other industrial-country currencies

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
1981	100.8	99.5	104.6	102.6	100.0	96.9	98.9	102.5	99.4	101.4	97.1	99.6	98.7	98.9	101.3	101.9
1982	109.3	100.6	92.4	105.7	97.3	99.9	96.5	98.8	101.2	91.9	100.5	99.0	103.0	97.9	103.2	95.6
1983	112.7	102.6	96.8	101.9	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.9	105.1	100.4	102.0	90.7
1984	119.6	100.2	97.8	106.4	97.0	98.0	101.8	90.2	103.0	85.9	97.8	91.1	100.1	99.2	100.5	96.0
1985	122.5	96.5	96.6	89.5	100.5	96.7	100.2	92.8	103.3	85.3	96.8	92.5	98.0	101.2	99.5	96.9
1986	101.6	93.4	119.3	78.6	102.6	103.6	103.0	87.5	106.7	84.7	101.5	94.5	105.8	107.6	97.1	96.1
1986																
September	97.5	93.6	126.7	72.4	102.4	105.3	104.2	84.5	107.0	84.5	102.7	95.1	110.2	108.8	96.6	95.8
October	97.8	93.7	124.3	74.2	103.6	105.9	105.0	81.0	107.3	84.6	104.4	94.7	110.2	110.5	96.4	95.5
November	99.2	94.0	119.4	76.7	102.8	105.8	105.4	81.9	107.5	84.7	104.7	95.1	108.2	110.4	95.8	95.9
December	98.2	94.2	119.1	79.0	102.2	106.4	105.8	82.2	108.1	84.5	104.9	95.8	108.5	110.8	94.3	96.0
1987																
January	94.7	94.6	121.0	77.3	102.3	108.4	105.6	82.3	109.7	85.7	104.6	95.6	109.0	111.8	94.4	96.0
February	92.9	97.0	120.7	77.8	102.8	108.7	105.4	82.6	109.8	85.6	105.0	95.4	108.6	113.2	94.9	96.5

Real against 18 other industrial-country and 22 LDC currencies

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
1981	99.8	99.4	104.7	102.5	99.5	96.2	98.2	102.0	98.9	100.9	96.6	98.9	98.0	98.7	101.3	101.6
1982	109.6	101.8	94.0	105.2	96.9	99.4	98.1	96.5	101.1	91.6	99.5	98.9	102.6	97.7	103.0	95.4
1983	114.9	104.6	100.4	102.1	94.4	100.6	100.8	93.0	102.1	88.2	99.5	89.2	105.1	100.3	101.9	90.9
1984	120.8	102.7	102.4	106.7	96.4	96.8	101.0	89.7	102.7	85.0	95.9	91.3	99.8	99.0	100.5	95.7
1985	124.0	99.2	101.6	90.1	100.0	95.8	99.8	92.3	102.9	84.5	94.8	93.2	97.8	101.2	99.8	96.8
1986	107.3	94.6	124.2	80.7	103.3	104.7	104.5	88.4	107.5	85.3	101.5	97.0	107.6	106.1	98.0	96.8
1986																
September	104.0	94.4	131.9	75.0	103.3	106.9	106.0	85.7	108.2	85.3	103.1	98.0	112.7	108.6	97.6	96.8
October	104.3	94.6	129.7	76.6	104.7	107.8	107.1	82.3	108.7	85.6	105.0	97.7	113.0	111.3	97.4	96.6
November	105.5	95.0	124.6	78.8	103.8	107.7	107.4	83.2	108.9	85.7	105.3	98.1	110.9	111.2	96.7	96.9
December	105.0	95.3	124.6	81.3	103.4	108.5	108.0	83.6	109.6	85.5	105.6	99.2	111.3	111.6	95.3	97.0
1987																
January	101.6	95.3	125.9	79.7	103.6	110.9	106.1	83.9	111.4	86.9	105.7	99.1	112.2	112.7	95.5	97.2
February	100.4	97.8	125.8	80.3	104.3	111.5	108.3	84.4	111.7	87.0	106.3	99.3	112.1	114.3	96.0	97.9

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1981	107.8	103.3	108.3	100.6	114.4	103.3	99.7	98.9	99.8	100.3	99.4	101.2	102.0	101.8	99.3	104.7
1982	77.0	112.9	97.3	105.9	82.9	104.6	110.2	101.6	111.7	101.9	105.6	106.7	100.8	96.6	106.6	96.0
1983	71.5	86.2	89.2	104.9	78.8	98.4	117.2	95.8	96.2	97.6	113.9	96.1	101.8	94.5	120.8	93.5
1984	80.1	85.7	90.1	99.6	91.8	105.8	86.0	100.2	96.8	96.5	119.7	107.9	102.4	97.1	119.5	91.1
1985	71.2	85.1	79.7	85.7	90.5	96.3	93.0	104.2	95.8	89.2	116.3	114.6	95.7	94.6	106.8	91.5
1986	61.0	74.5	68.7	67.8	65.1	93.8	87.1	94.0	71.2	73.9	94.2	90.3	80.2	87.3	101.0	71.2
1986																
March	62.0	75.2	67.1	70.7	68.3	90.5	89.1	94.5	80.5	76.9	97.6	91.4	82.7	86.8	99.0	74.4
April	61.8	73.6	66.5	70.1	66.7	90.8	89.7	95.5	80.1	76.6	94.6	89.9	80.9	88.7	100.7	71.9
May	60.8	72.8	68.6	68.1	65.7	90.6	89.8	95.2	78.9	75.1	92.9	88.4	79.1	88.4	101.5	71.4
June	61.3	73.1	70.3	67.8	66.7	92.0	90.2	96.2	79.1	75.4	93.1	87.4	79.3	89.5	101.9	70.9
July	61.6	72.2	69.6	66.8	65.0	92.1	89.9	91.7	76.9	70.7	91.2	87.8	78.6	89.0	101.0	69.8
August	60.9	72.2	67.9	65.9	62.3	91.6	89.7	90.3	75.4	69.8	90.7	85.8	78.5	86.1	99.5	67.7
September	58.8	72.4	67.7	65.9	60.7	93.6	90.0	92.3	60.9	70.4	90.3	86.5	78.0	84.9	100.5	67.4
October	58.8	71.7	67.6	64.9	60.5	96.7	91.0	92.3	54.6	70.6	89.7	88.2	77.7	84.7	100.9	67.7
November	59.4	73.0	68.2	64.9	60.7	100.9	91.4	94.9	55.5	71.9	90.9	89.2	78.9	85.5	102.0	65.8
December	58.8	76.1	68.1	65.4	59.8	105.2	60.2	93.7	55.2	72.1	90.6	90.2	76.3	85.9	102.2	64.8
1987																
January	56.3	75.9	65.9	64.8	60.4	101.0	58.9	89.6	53.9	70.5	88.3	88.5	75.7	85.3	92.5	64.9
February	50.1	68.0	66.3	65.3	60.3	87.4	59.6	89.2	53.9	70.1	88.5	86.4	75.3	85.1	92.1	64.6

International banking market size

at end of period, billions of dollars

	1981	*1982*	*1983*	*1984*	*1985*			*1986*	
					Jun	*Sep*	*Dec*	*Mar*	*Jun*
Gross claims									
Eurocurrencies, on residents and nonresidents	**1 929**	**2 146**	**2 253**	**2 359**	**2 459**	**2 622**	**2 833**	**2 947**	875
On nonbanks	557	634	665	694	735	761	822	854	2 165
On banks	1 372	1 512	1 588	1 665	1 724	1 861	2 011	2 093	**3 040**
In dollars	1 504	1 694	1 797	1 894	1 924	2 002	2 101	2 138	2 166
In other currencies	425	452	456	465	535	620	732	809	874
Domestic currencies, on nonresidents	**365**	**398**	**398**	**402**	**422**	**451**	**506**	**535**	**578**
On nonbanks	128	132	136	142	150	165	187	186	201
On banks	237	266	262	260	272	286	319	349	377
In dollars	188	211	217	215	209	205	215	203	210
In other currencies	177	187	181	187	213	246	291	332	368
Total	**2 294**	**2 544**	**2 651**	**2 761**	**2 881**	**3 073**	**3 339**	**3 482**	**3 618**
On nonbanks	685	766	801	836	885	926	1 009	1 040	1 076
On banks	1 609	1 778	850	1 925	1 996	2 147	2 330	2 442	2 542
In dollars	1 692	1 905	2 014	2 109	2 133	2 207	2 316	2 341	2 376
In other currencies	602	639	637	652	748	866	1 023	1 141	1 242
Gross liabilities									
Eurocurrencies, to residents and nonresidents	**1 954**	**2 168**	**2 278**	**2 356**	**2 471**	**2 641**	**2 846**	**2 964**	**3 059**
To nonbanks	372	432	479	497	520	546	585	610	632
To official monetary institutions	112	91	88	96	106	109	112	106	109
To other banks	1 470	1 645	1 711	1 793	1 845	1 986	2 149	2 248	2 318
In dollars	1 539	1 741	1 846	1 950	1 969	2 045	2 147	2 166	2 204
In other currencies	415	427	432	436	502	596	699	798	855
Domestic currencies, to nonresidents	**263**	**250**	**260**	**280**	**310**	**341**	**377**	**394**	**418**
To nonbanks	74	70	73	80	89	103	114	121	121
To banks	189	180	187	200	221	238	263	273	297
In dollars	126	116	135	146	154	159	169	166	171
In other currencies	137	134	125	134	156	182	208	228	247
Total	**2 217**	**2 418**	**2 538**	**2 666**	**2 781**	**2 982**	**3 223**	**3 358**	**3 477**
To nonbanks	446	502	552	577	609	649	699	731	753
To banks and official institutions	1 771	1 916	1 986	2 089	2 172	2 333	2 529	2 627	2 724
In dollars	1 665	1 857	1 981	2 096	2 123	2 204	2 316	2 332	2 375
In other currencies	552	561	557	570	658	778	907	1 026	1 102
Net market size	**1 155**	**1 285**	**1 382**	**1 430**	**1 497**	**1 572**	**1 676**	**1 735**	**1 800**

International bond issues and bank credits

millions of dollars

	1984	1985	1986	1986		1987	Jan	
				Nov	Dec	Jan	1987	1986
By country of borrower								
Industrial countries	**177 077**	**226 711**	**270 231**	**22 418**	**21 096**	**21 337**	**21 337**	**17 027**
Australia	5 816	14 407	20 106	2 094	774	1 122	1 122	3 012
Austria	2 254	2 435	3 581	178	121	657	657	291
Belgium	1 847	3 269	4 952	7	178	697	697	111
Canada	13 124	17 184	21 633	2 271	4 425	957	957	369
Denmark	4 825	3 589	9 633	1 263	1 526	1 647	1 647	61
Finland	1 713	1 846	3 445	260	422	504	504	199
France	11 298	18 773	19 701	1 688	1 864	1 110	1 110	644
Germany	2 165	3 452	11 927	1 412	324	2 162	2 162	211
Greece	1 551	1 567	1 317	20	143	—	—	—
Ireland	1 377	1 881	4 179	331	—	—	—	132
Italy	6 933	11 033	12 962	706	704	575	575	1 014
Japan	17 526	21 269	35 506	3 295	3 217	2 206	2 206	1 145
Netherlands	1 973	2 299	3 579	246	335	651	651	90
New Zealand	3 208	2 707	8 078	945	1 010	736	736	420
Norway	1 324	3 905	6 644	848	414	782	782	145
Portugal	1 796	2 382	2 433	25	31	215	215	567
South Africa	1 422	825	—	—	—	—	—	—
Spain	4 931	3 913	7 015	860	70	370	370	49
Sweden	11 256	9 890	8 020	368	120	527	527	639
United Kingdom	8 899	25 424	24 295	960	1 010	3 476	3 476	1 495
United States	65 054	69 193	56 774	4 022	4 051	2 084	2 084	6 002
*Other**	6 785	5 447	4 448	616	359	859	859	431
Developing countries	**39 725**	**32 139**	**24 317**	**1 638**	**2 467**	**507**	**507**	**1 242**
Latin American countries	**17 464**	**8 115**	**3 192**	**172**	**274**	—	—	**30**
Argentina	4 212	3 700	17	—	—	—	—	17
Brazil	6 649	—	219	19	150	—	—	—
Chile	784	1 085	—	—	—	—	—	—
Colombia	589	1 052	89	—	—	—	—	—
Mexico	3 918	109	313	—	—	—	—	—
Venezuela	—	46	—	—	—	—	—	—
*Other***	1 312	2 121	2 554	153	124	—	—	13
Asian countries	**15 893**	**18 410**	**15 291**	**1 120**	**1 699**	**407**	**407**	**1 009**
India	945	818	1 721	619	50	25	25	141
Indonesia	1 924	451	1 358	—	350	—	—	300
Korea	6 201	5 898	3 134	195	93	25	25	293
Malaysia	2 606	2 219	1 328	—	—	—	—	—
Philippines	925	925	—	—	—	—	—	—
Thailand	1 221	1 497	1 401	—	358	—	—	—
Other	2 072	6 602	6 350	306	849	357	357	276
Middle Eastern and African countries	**6 368**	**5 613**	**5 834**	**346**	**495**	**100**	**100**	**203**
Algeria	821	1 450	1 344	98	250	—	—	—
Nigeria	985	—	—	—	—	—	—	—
Turkey	741	1 203	2 637	140	220	—	—	138
Other	3 821	2 960	1 853	108	25	100	100	65
Eastern European countries	**3 244**	**5 236**	**4 091**	—	**300**	—	—	**298**
Hungary	1 386	1 577	1 315	—	—	—	—	248
Soviet Union	1 051	1 489	1 821	—	300	—	—	—
*Other****	807	2 169	955	—	—	—	—	50
International organizations****	**13 287**	**20 635**	**18 916**	**1 451**	**1 991**	**2 261**	**2 261**	**2 088**
By type of instrument and currency								
International bond issues	**107 411**	**167 756**	**226 393**	**18 214**	**13 862**	**17 998**	**17 998**	**14 061**
Eurobonds	79 458	136 731	187 952	14 944	9 758	14 707	14 707	11 179
U.S. dollar	63 593	97 782	118 220	9 445	5 979	5 365	5 365	7 570
German mark	4 604	9 491	16 870	1 002	298	2 955	2 955	1 052
British pound	3 997	5 766	10 510	—	346	1 069	1 069	289
Japanese yen	1 212	6 539	18 673	1 470	1 660	1 603	1 603	1 036
European composite units	3 032	7 038	6 965	842	615	1 909	1 909	464
Other	3 020	10 114	16 713	2 165	859	1 806	1 806	768
Foreign bonds	27 953	31 025	38 441	3 270	4 105	3 291	3 291	2 882
U.S. dollar	5 487	4 655	6 064	700	1 600	450	450	914
German mark	2 243	1 741	—	—	—	—	—	—
British pound	1 292	958	322	—	—	—	—	—
Swiss franc	12 626	14 954	23 401	1 974	1 747	2 338	2 338	1 334
Japanese yen	4 628	6 379	4 756	236	449	246	246	321
Other	1 677	2 339	3 898	361	309	257	257	313
International bank credits	**125 922**	**116 964**	**91 164**	**7 293**	**11 993**	**6 107**	**6 107**	**6 595**
Eurocurrency credits	112 605	110 317	82 755	6 758	11 105	5 616	5 616	6 231
Foreign credits	13 317	6 647	8 409	535	888	492	492	364
Total	**233 333**	**284 720**	**317 556**	**25 507**	**25 855**	**24 106**	**24 106**	**20 656**

*Includes multinational organizations. **Includes unallocated. ***Includes COMECON institutions. ****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1983	1984	1985	1986					1987	
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Eurodollar										
overnight	9.50	8.63	12.25	5.88	5.88	5.75	6.06	22.00	6.00	5.87
one month	3.69	8.38	8.00	5.69	6.00	5.81	6.25	6.50	6.06	6.31
three months	9.81	8.63	7.88	5.56	6.00	5.81	6.00	6.25	6.12	6.31
six months	10.06	9.13	7.88	5.56	6.00	5.81	5.94	6.12	6.12	6.31
twelve months	10.38	9.81	7.94	5.69	6.19	5.88	6.00	6.12	6.12	6.37
Euro-Canadian dollar										
one month	9.13	9.88	9.00	8.06	7.94	8.06	8.19	8.00	7.37	7.12
three months	9.50	10.81	9.00	8.13	8.19	8.31	8.31	8.12	7.37	7.25
six months	9.75	10.06	9.00	8.50	8.50	8.50	8.19	8.19	7.37	7.44
twelve months	10.00	10.44	9.00	8.63	8.75	8.69	8.56	8.31	7.50	7.62
Euro-French franc										
one month	12.13	10.69	12.50	7.13	7.38	7.38	7.56	10.12	8.81	8.31
three months	12.19	10.69	13.00	7.25	7.88	7.19	8.19	10.37	8.87	8.44
six months	12.31	11.00	13.13	7.31	7.75	7.88	8.37	9.75	8.81	8.44
twelve months	12.63	11.38	12.25	7.38	8.63	7.88	8.37	8.75	8.81	8.44
Euromark										
one month	5.25	5.50	4.75	4.44	4.50	4.44	4.69	5.12	4.00	3.94
three months	5.88	5.50	4.75	4.31	4.50	4.50	4.62	4.87	4.12	4.00
six months	6.13	5.56	4.75	4.31	4.56	4.56	4.69	4.81	4.12	4.00
twelve months	6.38	5.56	4.81	4.31	4.63	4.63	4.69	4.81	4.19	4.12
Euro-Dutch guilder										
one month	5.81	5.69	5.75	5.25	5.31	5.31	5.81	6.31	5.44	5.31
three months	6.00	5.75	5.75	5.13	5.25	5.31	5.69	6.00	5.31	5.31
six months	6.25	5.81	5.81	5.06	5.25	5.31	5.56	5.87	5.19	5.25
twelve months	6.38	5.94	5.88	5.06	5.25	5.31	5.56	5.81	5.19	5.25
Euro-Swiss franc										
one month	3.38	4.44	3.88	4.19	3.81	2.94	3.87	3.94	3.25	4.19
three months	3.75	4.56	4.00	4.13	4.06	3.75	3.87	3.94	3.19	3.94
six months	3.94	4.63	4.00	4.13	4.06	3.75	3.87	3.87	3.31	3.87
twelve months	3.94	4.69	4.06	4.13	4.06	3.81	3.87	3.87	3.62	3.94
Eurosterling										
one month	9.13	9.50	11.69	10.00	10.50	10.81	11.06	11.12	11.06	11.12
three months	9.31	9.88	11.81	9.81	10.19	11.13	11.37	11.12	11.00	10.69
six months	9.50	10.00	11.81	9.63	10.75	11.13	11.37	11.06	10.87	10.37
twelve months	9.81	10.19	11.69	9.56	10.81	11.06	11.37	11.06	10.75	10.31
Euroyen										
one month	6.25	6.19	7.13	5.13	4.94	4.25	4.62	4.56	4.37	4.56
three months	6.31	6.19	6.56	4.75	4.88	4.56	4.50	4.50	4.25	4.25
six months	6.38	6.13	6.50	4.63	4.88	4.56	4.50	4.37	4.12	4.12
twelve months	6.44	6.13	6.38	4.63	4.88	4.56	4.50	4.31	4.06	4.06
European currency unit										
one month	8.81	9.25	9.63	7.25	7.25	7.44	7.56	8.56	7.62	7.44
three months	9.19	9.38	9.63	7.06	7.25	7.56	7.62	8.44	7.56	7.44
six months	9.44	9.50	9.63	6.88	7.25	7.50	7.62	8.06	7.50	7.44
twelve months	9.63	9.63	9.63	6.88	7.25	7.50	7.56	7.31	7.50	7.37

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years
at or near end of month

	1984	1985	1986						1987	
	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States companies										
Eurodollar	11.25	9.68	8.97	8.60	9.04	8.76	8.71	8.67	6.70	8.71
Euromark	6.95	6.73	6.55	6.55	6.73	6.66	6.63	6.62	6.64	6.60
Swiss franc	5.73	5.49	5.56	5.63	5.65	5.67	5.73	5.70	5.67	5.64
European governments										
Eurodollar	12.04	10.52	9.97	9.73	9.92	9.85	9.81	9.91	9.85	10.03
Euromark	7.39	7.03	6.81	6.64	6.63	6.78	6.88	6.77	6.64	6.70
Swiss franc	5.24	4.91	4.73	4.66	4.61	4.57	4.58	4.51	4.40	4.35
European currency unit	10.64	10.23	10.02	10.17	10.23	10.49	10.55	10.20	10.38	10.37

Central bank discount rates

at or near end of month

	1983	*1984*	*1985*	*1986*			*1987*		*Current*	
	Dec	*Dec*	*Dec*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*	*Mar 12 1987*	*effective since*
United States	8.50	8.00	7.50	5.50	5.50	5.50	5.50	5.50	5.50	Aug 21, 86
Canada	9.96	10.09	9.49	8.55	8.49	8.47	7.49	7.53	7.28	Mar 12, 87
Austria	3.75	4.50	4.00	4.00	4.00	4.00	3.50	3.50	3.50	Jan 23, 87
Belgium	10.00	11.00	9.75	8.00	8.00	8.00	8.50	8.50	8.00	Mar 12, 87
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.50	9.50	9.00	7.00	7.00	7.00	7.00	7.00	7.00	May 19, 86
France	9.50	9.50	9.50	9.50	9.50	9 50	9.50	9.50	9.50	Aug 31, 77
Germany	4.00	4.50	4.00	3.50	3.50	3 50	3.00	3.00	3.00	Jan 23. 87
Ireland	12.25	14.00	10.25	13.25	13.25	13 25	13.25	13.25	13.25	Oct 24, 86
Italy	17.00	16.50	15.00	12.00	12.00	12 00	12.00	12.00	12.00	May 27, 86
Netherlands	5.00	5.00	5.00	4.50	4.50	4.50	4.50	4.50	4.50	Mar 7, 86
Norway	8.00	8.00	8.00	8.00	8.00	8.00	n.a.	n.a.	n.a.	Jun 6, 83
Portugal	25.00	25.00	19.00	14.50	14.50	16 00	15.50	15.50	15.50	Jan 7, 87
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.50	9.50	10.50	7.50	7.50	7.50	7.50	7.50	7.50	Sep 19, 86
Switzerland	4.00	4.00	4.00	4.00	4.00	4.00	3.50	3.50	3.50	Jan 22, 87
United Kingdom	9.00	9.38	11.31	10.81	10.81	10.81	10.81	10.81	10.37	Mar 9, 87
Japan	5.00	5.00	5.00	3.50	3.00	3.00	3.00	2.50	2.50	Feb 23, 87
New Zealand	7.50	13.50	19.80	16.50	19.80	24.60	n.a.	n.a.	24.60	Dec, 86
South Africa	18.50	21.75	13.50	10.50	10.50	10.00	10.00	10.00	10.00	Dec 10, 86
Argentina*	15.10	18.19	5.00	10.59	10.59	11.19	11.53	10.76	10.76	Feb 1, 87
Korea	5.00	5.00	5.00	7.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 86
Philippines	8.05	12.11	11.50	9.77	9.74	n.a.	n.a.	n.a.	9.74	Nov, 86
Singapore	7.00	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Jul, 85
Thailand	13.00	12.00	11.00	8 00	8.00	8 00	8.00	8.00	8.00	Sep 1, 86
Venezuela	11.00	11.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	Mar, 85

***Percent per month.**

Day-to-day money rates

monthly averages

	1983	*1984*	*1985*	*1986*						*1987*	
	Dec	*Dec*	*Dec*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*
United States	9.47	8.38	8.27	6.55	6.16	5 92	5.84	5.64	6.71	6.43	5.45
Canada	6.78	10.50	9.23	8.38	8.10	8.10	8.38	8.52	8.26	8.03	7.19
Austria	5.75	7.63	7.25	5.13	5.13	5 50	5.37	5.00	7.62	4.25	4.25
Belgium	7.39	9.12	6 60	6.34	6.37	5.76	6.36	6.00	5.47	7.47	7.04
Finland	16.70	15.07	11.96	10.80	24.17	13.86	11.93	11.80	11 97	11.99	11.78
France	12.27	10.95	9.01	7.28	7.05	7.08	7.31	7.31	7 28	8.80	8.38
Germany	5.61	5.62	4.64	4.61	4.49	4.39	4.41	4.45	5.00	4.01	3.79
Ireland	12.19	14.50	9.62	9.63	9.75	9 63	11.00	13.13	13 00	13.36	13.94
Italy	17.88	17.25	14.75	12.11	11.78	11.25	10.98	9.67	11.42	11.88	11.81
Netherlands	5.84	5.60	5.75	6.13	5.56	5.31	5.38	5.60	6.19	6.20	5.44
Norway	12.30	12.50	12.40	14.00	14.00	14.00	14.00	14.00	14.00	n.a.	n.a.
Spain	16.96	12.18	9 92	12.26	12.34	11.58	11.68	11.69	11.76	12.21	12.47
Sweden	11.52	11.86	11.83	9.56	9.52	8 92	8.51	8.64	8.89	9.09	12.00
Switzerland	1.88	1.50	2.00	2.25	2.00	2.00	1.00	1.00	1.12	1.00	1.00
United Kingdom	7.78	6.31	9.72	8.98	8.70	8.06	11.19	10.73	9.19	11.06	10.88
Australia	4.55	10.98	18.37	13.43	16.42	17.22	17.13	16.47	15.40	15.73	16.13
Japan	6.44	6.41	8.02	4.50	4.55	4.63	4.41	3.77	4.18	4.17	4.06
South Africa	16.06	21.13	12.50	10.75	9.81	9.63	9.63	8.87	8.50	9.00	8.50
Argentina*	14.65	17.75	4.50	5.00	7.00	6.00	7.00	7.00	7.00	7.00	4.00
Brazil	184.69	272.02	352.23	25.93	35.60	45.58	44.24	55.55	83.05	270.00	n.a.
Hong Kong	13.90	6.80	6.10	5.95	5.64	4.93	3.21	4.15	3.90	2.78	1.97
Korea	11.40	10.00	8.80	10.60	9.30	9.50	9 30	9.30	9.00	8.50	n.a.
Philippines	31.18	15.22	15.03	10.16	8.99	11.72	8.42	7.98	n.a.	n.a.	n.a.
Singapore	7.05	6.01	4.53	3.73	3.95	2.26	2.47	2.62	3.51	3.10	n.a.
Taiwan	7.65	8.07	4.50	3.50	3.50	3.50	3.50	3.50	3.00	3.25	3.25

***Percent per month.**

Treasury bill rates

bond equivalent yields, at or near end of month

	1983	1984	1985	1986						1987	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	9.28	7.99	7.25	5.93	5.23	5.30	5.25	5.44	5.73	5.66	5.49
Canada	9.71	9.84	9.24	8.26	3.33	8.35	8.30	8.24	8.22	7.24	7.28
Belgium	11.00	10.90	9.89	7.45	7.45	7.45	7.48	7.45	7.50	7.88	7.75
Ireland	12.01	15.10	11.15	10.13	10.65	10.61	13.79	14.22	13.60	n.a.	n.a.
Italy	16.29	14.19	12.70	10.44	10.13	10.34	10.13	10.00	10.00	9.94	n.a.
Netherlands	5.63	5.88	5.69	5.75	4.75	5.63	5.38	5.81	6.37	5.94	5.88
Spain	14.48	12.00	9.25	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.a.
Sweden	11.75	11.83	12.49	9.29	9.25	8.66	8.44	9.05	9.20	10.25	10.80
United Kingdom	9.04	9.33	11.49	9.76	9.56	9.93	10.65	10.96	10.75	10.56	10.47
Australia	8.54	12.27	19.40	14.98	17.20	17.51	16.18	15.49	14.91	16.64	16.32
Japan	4.91	4.91	4.91	3.39	3.39	3.39	3.39	2.89	2.89	2.89	2.89
New Zealand	7.80	13.50	17.62	15.35	16.53	15.36	16.00	16.44	19.69	22.36	25.38
South Africa	18.43	21.94	12.99	10.22	9.51	9.20	9.17	8.62	8.84	8.77	8.78
Brazil	179.15	273.03	379.77	26.30	36.00	42.00	45.00	33.00	149.00	276.40	n.a.
Mexico	53.78	48.67	72.98	n.t.	n.t.	n.t.	n.t.	103.77	104.03	104.64	104.83
Philippines	15.99	47.14	16.45	14.59	13.00	12.75	12.58	11.32	n.a.	n.a.	n.a.
Singapore	2.59	2.91	2.94	2.54	2.15	2.01	1.99	1.93	2.10	2.19	n.a.

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1983	1984	1985	1986						1987	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	9.89	8.34	8.01	6.39	5.65	5.96	5.81	5.79	7.78	6.76	6.06
Canada	9.87	10.10	9.45	8.55	8.35	8.50	8.50	8.35	8.20	7.55	7.45
Belgium	11.15	10.85	9.89	7.40	7.40	7.35	7.35	7.40	7.60	7.55	7.70
France	12.19	10.69	9.12	7.25	7.13	7.43	7.50	7.60	8.37	8.50	n.a.
Germany	6.30	5.75	4.80	4.65	4.30	4.40	4.60	4.65	4.85	3.90	n.a.
Ireland	12.19	15.13	12.00	10.75	10.63	11.25	14.00	14.44	14.06	n.a.	n.a.
Italy	17.88	16.88	15.13	11.38	11.00	10.62	11.00	11.12	11.37	11.38	n.a.
Netherlands	6.00	5.75	5.75	5.56	5.25	5.44	5.44	5.81	6.19	5.44	5.50
Portugal	24.11	24.57	20.71	15.95	15.93	15.96	15.96	15.93	15.96	14.86	n.a.
Spain	19.00	12.21	10.51	12.51	12.18	11.53	11.41	11.52	11.79	12.35	12.60
Switzerland	3.88	5.00	4.75	4.88	4.25	4.25	4.19	4.00	4.50	3.75	4.00
United Kingdom	9.31	9.88	12.75	9.88	9.63	10.38	11.13	11.44	11.25	11.13	11.00
Australia	9.05	12.90	19.75	15.10	17.70	17.85	16.45	15.65	15.10	16.40	16.63
Japan	6.45	6.33	7.03	4.65	4.53	4.75	4.54	4.43	4.34	4.22	3.96
New Zealand	11.75	15.00	20.00	16.80	16.30	16.50	16.50	16.50	24.25	23.60	25.13
South Africa	19.12	22.78	13.35	10.55	9.35	9.55	9.65	8.90	8.55	9.20	9.05
Chile	20.68	20.68	22.42	15.39	11.35	12.68	20.98	20.98	19.56	25.34	n.a.
Hong Kong	14.88	8.25	6.50	6.31	5.00	5.25	4.38	4.44	4.62	3.44	4.38
Indonesia	19.50	19.00	15.00	15.00	14.00	14.50	14.25	14.50	19.50	16.50	16.00
Korea	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	n.a.
Malaysia	9.80	10.30	8.20	9.80	11.75	12.00	9.50	6.70	6.00	5.30	3.30
Philippines	15.61	33.21	14.61	12.47	11.76	9.89	11.19	10.31	n.a.	n.a.	n.a.
Singapore	8.44	7.00	5.88	4.31	3.94	3.25	2.94	3.19	3.94	3.34	n.a.
Taiwan	6.07	7.85	4.10	3.27	2.81	2.65	2.65	2.80	n.a.	n.a.	n.a.
Thailand	16.00	12.00	15.50	8.00	8.00	7.50	7.50	7.75	7.75	7.75	n.a.

Commercial bank deposit rates

at or near end of month

	1983	1984	1985	1986						1987	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	9.70	8.35	7.75	6.33	5.47	5.80	5.75	5.78	6.30	6.00	6.13
Canada	9.82	10.05	9.40	8.50	8.30	8.45	8.45	8.30	8.15	7.50	7.40
Austria	6.50	7.50	6.50	5.13	5.13	5.75	5.62	5.37	5.50	5.12	4.75
Belgium	11.25	10.63	9.63	7.25	7.19	7.25	7.31	7.37	7.44	7.75	7.69
Denmark	6.00	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	n.a.
Finland	5.25	5.25	4.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
France	7.66	7.04	6.12	4.50	4.50	4.50	4.50	4.50	4.50	4.50	n.a.
Germany	5.90	5.25	4.40	4.45	4.45	4.40	4.50	4.60	4.80	4.70	n.a.
Ireland	11.75	14.63	11.87	10.00	10.00	10.50	12.00	14.12	13.75	n.a.	n.a.
Italy	13.25	11.64	11.85	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Netherlands	6.13	5.69	5.81	5.44	5.19	5.31	5.31	5.69	6.06	5.31	5.38
Norway	12.75	12.75	12.00	13.00	13.00	13.00	13.00	n.a.	n.a.	n.a.	n.a.
Portugal	21.50	28.00	20.00	15.50	15.50	15.50	15.00	15.00	15.00	15.00	n.a.
Spain	12.62	11.64	9.64	8.89	8.89	8.78	8.75	8.65	8.67	8.54	n.a.
Sweden	11.70	11.45	12.18	9.80	9.70	9.27	8.83	9.85	9.93	10.30	11.00
Switzerland	3.50	4.50	4.50	4.63	4.00	4.00	3.94	3.75	4.25	3.50	3.75
United Kingdom	9.31	9.88	11.75	9.88	9.63	10.37	11.13	11.25	11.19	11.00	10.59
Australia	10.40	12.75	18.80	14.46	16.68	17.82	16.71	15.76	15.56	15.73	16.62
Japan	6.40	6.38	7.05	4.70	4.80	4.95	4.63	4.59	4.55	4.16	4.22
New Zealand	11.75	15.25	19.98	16.47	16.57	15.50	16.60	19.00	23.50	22.72	23.70
South Africa	20.13	22.88	13.20	10.80	9.75	9.50	9.75	9.25	8.65	9.50	9.25
Argentina*	14.50	31.23	5.40	4.48	6.18	6.94	7.65	7.97	8.41	8.81	4.43
Brazil	23.00	27.00	18.00	30.00	42.00	44.00	49.00	65.00	220.00	n.a.	n.a.
Chile	20.57	20.68	23.60	16.49	13.62	16.49	20.70	20.27	20.98	26.97	n.a.
Hong Kong	14.88	8.25	6.50	6.31	5.00	5.25	4.38	4.44	4.62	3.44	4.38
Korea	7.60	8.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	n.a.
Malaysia	7.75	9.58	7.00	7.00	7.00	7.00	7.00	6.50	6.33	4.83	4.66
Mexico	57.15	47.45	72.90	87.50	87.50	94.30	94.30	94.30	94.30	94.30	94.30
Philippines	14.96	31.01	12.34	10.12	10.88	9.77	9.35	9.55	n.a.	n.a.	n.a.
Singapore	7.44	6.13	5.26	4.26	3.88	3.19	2.88	3.13	3.63	3.19	n.a.
Taiwan	7.00	6.50	5.25	4.50	4.25	4.50	4.00	4.00	4.00	4.00	4.00
Thailand	10.00	13.00	10.50	7.50	6.75	6.75	6.75	6.75	6.75	6.75	n.a.
Venezuela	12.00	12.50	8.00	9.00	9.00	8.00	8.00	8.00	8.00	8.00	8.00

*Percent per month.

Domestic government bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986						1987	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	12.00	11.61	9.49	7.88	7.51	7.95	7.81	7.69	7.79	7.17	7.62
Canada	12.02	11.66	10.04	9.36	9.16	9.44	9.53	9.26	9.23	8.94	9.10
Austria	8.02	8.04	7.61	7.20	7.11	7.06	7.25	7.36	7.33	7.25	7.06
Belgium	11.89	11.56	9.60	7.47	7.24	7.36	7.31	7.41	7.70	7.57	n.a.
Denmark	12.96	14.60	9.87	10.64	11.24	11.11	11.16	11.80	11.70	11.33	n.a.
Finland	11.16	10.73	10.58	8.25	8.15	7.75	7.90	7.74	7.80	7.78	7.82
France	13.96	12.70	11.33	8.55	8.05	8.51	8.97	9.49	9.89	9.54	n.a.
Germany	8.38	7.17	6.57	6.07	5.95	6.26	6.44	6.33	6.25	6.20	n.a.
Ireland	14.25	14.90	11.84	10.33	11.33	12.46	13.65	13.49	13.97	n.a.	n.a.
Italy	17.69	14.52	13.66	11.06	10.81	10.43	10.26	10.33	10.21	9.78	n.a.
Netherlands	8.58	7.72	6.96	6.22	6.03	6.04	6.22	6.30	6.40	6.21	6.15
Norway	12.50	12.00	13.10	13.42	13.40	13.40	13.40	n.a.	n.a.	n.a.	n.a.
Portugal	22.11	22.23	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	17.25	13.93	12.30	11.52	11.52	11.10	10.15	10.29	10.36	10.74	10.59
Sweden	12.30	12.04	12.11	9.76	9.63	9.49	9.31	10.35	10.66	11.70	11.23
Switzerland	4.53	4.60	4.42	4.39	4.26	4.26	4.19	4.16	4.05	4.02	4.06
United Kingdom	9.94	10.25	10.35	9.45	9.31	10.31	10.40	10.58	10.17	10.64	9.51
Australia	13.65	13.50	14.85	14.02	14.10	13.85	13.60	13.60	13.40	13.60	14.10
Japan	7.45	6.47	5.92	4.83	4.57	4.65	4.95	4.77	4.66	4.23	4.30
New Zealand	10.50	16.90	17.00	16.20	15.90	15.35	15.20	16.00	15.85	16.20	16.65
South Africa	13.64	16.55	18.09	16.00	14.03	15.24	15.83	14.13	15.06	15.33	15.30
Philippines	14.47	18.54	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.a.	n.a.	n.a.
Venezuela	13.50	14.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

Commercial bank lending rates to prime borrowers

at or near end of month

	1983	1984	1985	1986						1987	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	11.00	10.75	9.50	8.00	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Canada	11.00	11.25	10.00	9.75	9.75	9.75	9.75	9.75	9.75	9.25	9.25
Austria	9.25	9.25	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	8.75
Belgium	13.75	14.00	11.50	9.75	9.75	9.75	9.75	9.75	9.75	10.75	10.25
Denmark	10.00	10.50	8.50	7.50	8.00	8.00	8.00	8.00	8.00	9.50	n.a.
Finland	10.18	10.68	10.37	8.76	8.79	8.77	8.75	8.74	8.81	8.81	n.a.
France	12.25	12.00	10.60	9.60	9.60	9.45	9.45	9.45	9.45	9.45	9.45
Germany	7.75	7.75	7.25	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.25
Ireland	13.75	15.75	12.50	12.25	12.25	12.25	15.75	15.75	15.75	n.a.	n.a.
Italy	18.75	18.00	15.88	13.50	13.50	13.00	13.00	13.00	13.00	13.00	13.00
Netherlands	7.00	6.25	6.25	6.50	5.88	5.88	5.86	6.12	7.12	6.13	5.75
Norway	13.50	13.00	12.40	15.25	15.25	15.75	15.88	n.a.	n.a.	n.a.	n.a.
Portugal	30.00	29.00	22.50	18.00	18.00	18.00	17.50	17.50	17.50	17.50	n.a.
Spain	17.31	15.84	14.75	14.37	14.36	14.29	14.25	14.23	14.22	14.24	14.24
Sweden	13.50	14.50	15.05	12.75	12.75	11.50	11.50	11.50	11.50	11.50	11.50
Switzerland	6.00	6.00	6.00	5.75	5.75	5.75	5.75	5.75	5.75	5.25	5.25
United Kingdom	9.00	9.50	11.50	10.00	10.00	10.00	11.00	11.00	11.00	11.00	11.00
Australia	12.75	14.00	21.00	17.25	16.50	19.00	19.00	18.45	18.25	18.00	18.25
Japan	5.89	5.70	5.71	4.57	4.52	4.48	4.48	4.45	4.35	n.a.	n.a.
New Zealand	11.00	14.00	21.00	17.00	16.50	17.00	17.00	18.50	18.50	24.00	25.00
South Africa	20.00	24.00	16.50	14.50	14.00	13.50	13.50	13.50	12.00	12.50	12.50
Argentina*	15.50	32.05	7.30	5.57	7.70	8.62	8.70	8.65	11.30	9.65	5.45
Brazil	24.00	31.00	19.00	32.00	44.00	46.00	51.00	88.00	250.00	n.a.	n.a.
Chile	30.90	60.82	33.34	28.77	26.38	23.51	27.20	29.13	29.13	33.57	n.a.
Hong Kong	13.50	11.00	7.00	7.50	6.50	6.50	6.50	6.50	6.50	5.00	5.00
Indonesia	19.75	23.50	18.75	18.75	18.75	18.75	18.25	18.25	19.75	20.50	19.50
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	n.a.
Malaysia	11.00	12.00	10.50	10.50	10.50	10.50	10.50	10.50	10.00	9.00	9.00
Mexico	56.44	47.54	65.66	81.36	84.40	87.72	91.48	94.19	95.33	95.89	96.20
Philippines	18.00	44.00	15.00	14.00	13.50	13.00	12.00	11.00	10.00	n.a.	n.a.
Singapore	8.98	9.40	7.20	7.05	6.83	6.45	6.28	6.10	6.10	6.10	n.a.
Taiwan	10.25	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Thailand	16.00	16.50	15.50	12.75	12.00	12.00	12.00	12.00	12.00	12.00	n.a.
Venezuela	16.00	16.00	13.00	14.00	14.00	13.00	13.00	13.00	13.00	13.00	13.00

*Percent per month.

Domestic corporate bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986						1987	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	12.63	12.25	10.15	9.25	8.63	9.00	9.00	8.88	8.88	8.50	8.55
Canada	12.89	12.42	10.74	10.19	10.00	10.32	10.39	10.21	10.18	9.67	9.90
France	14.35	12.94	11.76	9.12	8.37	8.92	9.36	9.77	10.18	9.92	n.a.
Germany	8.30	7.20	6.90	6.60	6.40	6.30	6.40	6.60	6.50	6.50	n.a.
Netherlands	8.51	7.51	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Norway	13.25	12.75	14.00	14.90	15.00	15.50	15.00	n.a.	n.a.	n.a.	n.a.
Spain	20.07	18.32	14.92	13.22	13.68	13.38	13.24	13.61	13.40	13.72	14.13
Sweden	12.21	12.33	13.25	10.88	10.99	10.82	10.77	11.72	11.99	13.00	12.63
Switzerland	4.92	5.09	4.93	4.84	4.77	4.77	4.73	4.71	4.72	4.62	4.56
United Kingdom	11.57	11.64	11.47	10.49	10.32	10.34	11.58	11.43	11.71	11.30	10.58
Japan	7.49	7.11	6.79	6.35	6.11	6.10	6.18	6.06	5.93	5.46	n.a.
Korea	14.20	15.00	13.60	12.90	12.80	12.80	12.80	12.80	12.70	12.70	n.a.
Venezuela	18.00	18.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00

Key to data in tables

I. International markets

Data on the ***international banking market size*** are based on resident and nonresident Eurocurrency (i.e., foreign currency) assets and liabilities and on nonresident domestic currency assets and liabilities of banks in nearly all European countres, the Bahamas, Bahrain, Canada, Cayman Islands, Hong Kong, Japan, Netherlands Antilles, Panama, Singapore, and the United States. All assets and liabilities of international banking facilities (IBFs) of banks in the United States are treated as Eurocurrencies.

An *international bond issue* may be either a Eurobond issue or a foreign bond issue. A *Eurobond issue* is one placed principally in countries other than that of the currency in which the bond is denominated, usually through an international syndicate. A *foreign bond issue* is one issued by a nonresident borrower on the market of a single country and denominated in that country's currency. Data on new international bond issue volume include all publicly announced issues of straight bonds, convertibles, bonds with warrants, floating rate notes, and certificates of deposit with an original maturity of three years or more (one year or more beginning in 1985), whether publicly or privately placed.

An *international bank credit* may be either a Eurocurrency credit or a foreign credit. A *Eurocurrency credit* is one denominated in a currency that is foreign to the country of the bank office extending the credit. *A foreign credit* is one extended to a nonresident borrower and denominated in the domestic currency of the country in which the bank office extending the credit is located. Data on new international bank credit volume include all publicly announced bank credits with an original maturity of one year or more (term loans, revolving lines of credit, and facilities to back up the issuance of other financial instruments such as commercial paper, short-term notes, certificates of deposit and banker's acceptances).

Data on international bond issues and bank credits through 1984 were compiled by Morgan Guaranty Trust Company. Beginning in January 1985 these data are based on figures published in the OECD's *Financial Statistics Monthly.*

II. Domestic markets

Central bank discount rates

Rates shown are the official discount rates with the exception of:

Ireland — Short Term Facility rate.

South Africa — discount rate for 90-day banker's acceptances.

United Kingdom — rate of discount for outright purchases of 15- to 33-day bank bills.

Day-to-day money rates

Argentina—7-day interbank money regulated by the central bank.

Austria — day-to-day interbank rate.

Australia — effective interest rate in the official short-term money market.

Belgium — day-to-day loan rate in the call money market.

Brazil — interbank overnight money.

Canada—chartered banks' day-to-day loans.

Finland — Bank of Finland call money.

France — interbank call money against private paper.

Germany — interbank call money.

Hong Kong — interbank 24-hour call rate.

Ireland — interbank call money.

Italy — interbank 48-hour call money.

Japan—Tokyo interbank call money, unconditional lenders rate.

Korea — overnight interbank call money.

Netherlands — open-market call money.

Norway — day-to-day interbank rate.

Philippines — interbank call loan rate.

Singapore — interbank overnight money.

South Africa — discount houses basic call rate.

Spain — day-to-day interbank rate.

Sweden — interbank call money.

Switzerland — call money.

Taiwan — private interbank overnight loan rate.

United Kingdom — call money.

United States — federal funds rate.

Treasury bill rates

Australia — 13-week Treasury notes at tender.

Belgium — new issue of 3-month Treasury certificates.

Brazil — 3-month Treasury bills.

Canada — 3-month Treasury bills at tender.

Ireland — 3-month central bank exchequer bills at tender.

Italy — 6-month Treasury bills.

Japan — 60- to 62-day noninterest-bearing discount government bills.

Mexico — 3-month Federal Treasury bills.

Netherlands — 3-month Treasury bills.

New Zealand — tap issue rate for 3-month Treasury bills until December 1984. As of January 1985, 3-month Treasury bills at tender.

Philippines — simple average of 91-day Treasury bills at tender until June 1984. Beginning July 1984 rates refer to the weighted average interest rate on 91- to 183-day Treasury bills sold to banks under negotiated basis.

Singapore — 91-day Treasury bills at tender.

South Africa — 3-month Treasury bills at tender.

Spain — 6-month Treasury bills at tender until March 1984. As of April 1984, 3-month Treasury bill repos reported by the Bank of Spain (average of quotations during the month).

Sweden — new issues of 3-month Treasury bills until June 1982. New series as of July 1982, 6-month Treasury discount notes, market rate.

United Kingdom — 91-day Treasury bills at tender.

United States — 3-month Treasury bills.

Representative money-market rates

Australia — buying rate for 90-day bank accepted commercial bills.

Belgium — 4-month Fonds des Rentes certificates.

Canada — 3-month prime finance company paper.

Chile — central bank 60-day fixed rate promissory notes (PDBC) at tender.

France — 3-month interbank money against private paper.

Germany — 3-month interbank deposits.

Hong Kong — 3-month interbank deposits.

Indonesia — 1-month interbank deposits.

Ireland — 3-month interbank deposits.

Italy — 3-month interbank deposits.

Japan — 3-month "gensaki" rate.

Korea — 3-month financial bill.

Malaysia — 3-month interbank deposits.

Netherlands — 3-month interbank deposits.

New Zealand — 90-day commercial bills.

Philippines—weighted average interest rate for 90-day promissory rates.

Portugal — average of 30- to 90-day interbank deposits.

Singapore — 3-month banker's acceptances.

South Africa—90-day banker's acceptances.

Spain — 3-month interbank rate reported by the Bank of Spain (average of quotations during the month).

Switzerland — 3-month interbank deposits.

Taiwan — 90-day banker's acceptances.

Thailand — interbank call money.

United Kingdom — 3-month interbank deposits.

United States — 3-month prime industrial paper.

Commercial bank deposit rates

Argentina — nominal 30-day time deposits. Average of bank rates published by the central bank until August 1984. New series as of September 1984, 30-day acceptances maximum interest rate.

Austria — 3-month time deposits.

Australia — 3-month certificates of deposit.

Belgium — special maximum rate for 3-month time deposits in large amounts.

Brazil — 6-month certificates of deposit with prefixed yields until July 1982. New series as of August 1982, 6-month certificates of deposit reported as a spread above monetary correction which is set every month in relationship to inflation.

Canada — 3-month time deposits.

Chile — 30-day time deposits.

Denmark — time deposits of 3-months' notice.

Finland — time deposits of six-month notice.

France — 3-month time deposits of FF. 1,000,000.

Germany — 3-month time deposits in large amounts.

Hong Kong — negotiable 3-month time deposits of more than HK$500,000.

Ireland — 3-month deposits.

Italy — 3-month time deposits of Lit. 100 million or more.

Japan — 90-day negotiable certificates of deposit issued by the Tokyo office of Morgan Guaranty Trust Company.

Korea — 3-month time deposits.

Malaysia — 3-month time deposits.

Mexico — 3-month certificates of deposit until September 1983. New series as of October 1983, 3-month promissory notes.

Netherlands — 3-month time deposits in large amounts.

New Zealand — 6-month transferable certificates of deposit.

Norway — 3-month special term deposits.

Philippines — weighted average interest rates on 60- to 90-day time deposits of sample commercial banks.

Portugal — 90- to 180-day time deposits until May 1984. New series as of June 1984, 180-day to one-year time deposits.

Key to data in tables — continued

Singapore — 3-month certificates of deposit.

South Africa — 3-month negotiable certificates of deposit.

Spain — deposits over 6 months and less than 1 year for Pts. 1 million or more reported by the Bank of Spain.

Sweden — 3-month certificates of deposit.

Switzerland — 3-month time deposits.

Taiwan — maximum rate for 3-month time deposits.

Thailand — 3-month time deposits.

United Kingdom — 3-month time deposits.

United States — 3-month negotiable certificates of deposit issued by Morgan Guaranty Trust Company.

Venezuela — 6-month negotiable certificates of deposit for domestic depositors only.

Domestic government bond yields

Austria — Austrian National Bank average yield on all outstanding government bonds.

Australia — secondary market yield for 10-year Treasury bonds.

Belgium — Belgium National Bank secondary market average yield on central government bonds of more than 5 years' maturity quoted on Brussels Stock Exchange.

Canada — Bank of Canada average yield on all direct government bonds due or callable in 10 years or more.

Denmark — 12% serial bonds maturing 2001 until April 1983. New series as of May 1983, 10% serial bonds maturing 2004.

Finland — rate of interest at issue on central government bonds intended for public subscription, weighted by sales of bonds in the latter half of each month.

France — INSEE secondary market weighted average yield of public sector bonds with a remaining maturity of 10 years or more.

Germany — Frankfurter Allgemeine Zeitung 10-year public authority bond average.

Ireland — 15-year government bonds.

Italy — average yield on fixed-interest government bonds, not including irredeemable bonds, weighted by the amounts in circulation, for maturities of 9 years or more.

Japan — secondary market average yield on longest-term life government bonds as quoted by the Securities Dealers Association of Japan.

Netherlands — Central Bureau of Statistics (CBS) average yield on three latest government bonds.

New Zealand — average yield on government bonds maturing after 5 years.

Norway — 5% government bond of 1996 until December 1982. New series as of January 1983, average yield of long-term government bonds.

Philippines — weighted average interest rate of outright sales on secondary transactions for central bank certificates of indebtedness.

Portugal — yield of 4% Centenary Loan of 1940.

South Africa — 25-year government bonds until August 1983; 20-year Republic of South Africa bonds until April 1984; new series as of May 1984, secondary market yield for the 13% due 2005 Republic of South Africa bond.

Spain — Bank of Spain secondary market weighted average yield of several central government issues with more than 2 years' maturity (average of quotations during the month).

Sweden — 15-year government bonds until October 1983. New series as of November 1983, 5-year government bond yield index, market rate.

Switzerland — Swiss Confederation bond average.

United Kingdom — F.T. (*Financial Times*) Actuaries 25-year government stock.

United States — Morgan Guaranty 20-year U.S. Government Bond Index.

Venezuela — Banco Central average yield on public-sector bond issues.

Commercial bank lending rates to prime borrowers

Argentina — average rate on 30-day loans.

Austria — overdraft rate for prime borrowers, including commission.

Australia — overdraft rate. Maximum indicator rate applying to loans of A$100,000 or more for major trading banks.

Belgium — prime overdraft rate.

Brazil — prefixed rate applied to working capital loans until July 1982; monetary-corrected free rate applied to working capital loans from August 1982 to July 1983. New series as of August 1983, maximum legal rate reported as a spread above monetary correction which is set every month in relationship to inflation. Charges for fees and commissions are often added.

Canada — prime rate.

Chile — average prime rate of six major commercial banks.

Denmark — approximate rate for loans and advances to prime borrowers.

Finland — average rates on total commercial bank lending.

France — base lending rate, excluding a commission of .05% per month on highest debit balance during the month. A spread above base rate is often added.

Germany — approximate effective overdraft rate for prime borrowers.

Hong Kong — prime lending rate set by the Hong Kong Association of Banks.

Indonesia — prime rate for domestic affiliates of foreign companies.

Ireland — AA corporate borrowing rate.

Italy — unsecured overdraft rate for prime borrowers.

Japan — average contracted interest rate for short-term loans of city banks. In addition, compensating balances may be required.

Korea — prime rate.

Malaysia — Bank of Commerce Berhad base lending rate.

Mexico — base rate or average cost of money for banks determined monthly by the Banco de Mexico S.A.

Netherlands — overdraft rate for prime borrowers, including commission.

New Zealand — overdraft rate for prime borrowers.

Norway — overdraft rate, including a commission of .25% per quarter on the total line of credit until January 1983. New series as of February 1983, special rate of first class. large borrowers.

Philippines — prescribed administrative ceiling for unsecured loans with maturities of 365 days and below, including charges until December 1982. New series as of January 1983, modal rate to prime borrowers.

Portugal — maximum rate for 90- to 180-day loans.

Singapore — most common overdraft rate, major banks.

South Africa — unsecured overdraft rate for prime borrowers.

Spain — private banks' average interest rate for 1-year loans reported by the Bank of Spain.

Sweden — overdraft rate for prime industrial borrowers, commission not included.

Switzerland — unsecured overdraft rate for prime borrowers, excluding commission of .25% per quarter on average or highest outstanding debit balance in quarter.

Taiwan — maximum rate for 3- to 12-month secured loans. Rate is an indication only and may vary from actual bank lending rate which is subject to volatile interbank rates.

Thailand — prime rate.

United Kingdom — clearing bank base lending rate. A spread above base rate is often added.

United States — prime rate of Morgan Guaranty Trust Company.

Venezuela — representative rate for domestic prime borrowers only.

Domestic corporate bond yields

Canada — McLeod, Young, Weir Co. Ltd., weighted long-term bond yield index for AA corporates.

France — INSEE secondary market weighted average yield of private company bonds with a remaining maturity of 10 years or more.

Germany — Bundesbank secondary market weighted average yield of industrial bonds with a remaining maturity of more than 3 years.

Japan — secondary market yield for NTT bond maturing March 1987.

Korea — average of yields on corporate bonds guaranteed by local banks, with an original maturity of 3- 2- 5-years.

Netherlands — CBS average yield on three 6%-6.5% corporate bonds until December 1981. As of January 1982, CBS secondary market weighted average yield on all commercial bank issues with a quotation between 92% and 103%.

Norway — 5.75% Dalen Portland-Cement bond of 1969-1984 until December 1982. New series as of January 1983 average yield of long-term industrial bonds.

Spain — Bank of Spain seconary market weighted average yield of several corporate issues with more than 3 years' maturity (average of quotations during the month).

Sweden — Central Satistical Bureau average yield on industrial bonds.

Switzerland — average yield on outstanding bonds of four leading Swiss companies. Mixture changed as of January 1982.

United Kingdom — *Financial Times* secondary market average yield of industrial and financial company debentures and loan stocks with an average of 25 years to maturity.

United States — Salomon Brothers Index of new issues yields for Aa industrial bonds with five-year call protection.

Venezuela — average of yields on 15-year bond issues of Electricidad de Caracas.

World Financial Markets

Published by
Morgan Guaranty Trust Company of New York
International Economics Department
23 Wall Street, New York, NY 10015

Member, Federal Deposit Insurance Corporation. Printed in U.S.A.

5/15/87 B6200-2

World Financial Markets

Morgan Guaranty Trust Company of New York

April 1987

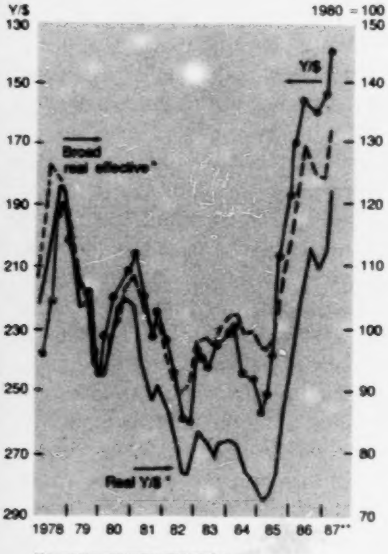
Japan under pressure, 1
- Foot-dragging on Maekawa, 3
- Japan's manufacturing and export dependence, 5
- Limited results from market opening, 6
- Growth-stifling domestic policies, 8
- A real Action Program?, 10
- A coordinated approach, 11

Statistical appendix, 13

Chart 1

The yen

quarterly averages



*Adjusted to real terms using relative wholesale prices of manufactures

** Latest plotting April 24

Japan under pressure

With the economy reeling under the pressure of the yen's appreciation — it is up over 35% in broad real effective terms since February 1985 (see Chart 1) — Japan has reached historic crossroads that confront its policymakers with critical choices. Their actions will determine whether Japan returns to the head of the industrial-country growth league or remains stuck with real GNP growth at or below last year's pace — 2.5% on a calendar-year average basis, and a mere 2% measured fourth-quarter to fourth-quarter. This was its worst performance in over a decade.

Japan's halcyon days of export-led growth are over, at least for some years to come. In 1986, despite the widening of the trade surplus to $93 billion in nominal FOB terms — and of the current account surplus to $86 billion (4.4% of GNP) — exports slumped almost 5% and imports gained over 3% on a GNP-accounts basis (see Table 1). Together they subtracted 1.3% from overall economic activity. Adverse external demand again will clip a percentage point or so from Japan's real GNP growth in 1987, which could well stay around 2%.

Japan tends to blame its economic woes on the priority that the United States now attaches — and correctly so — to remedying its trade deficit. In fact, Japan's adjustment problems have their origin in domestic policies that have clung to outdated goals rather than offset the inevitable shrinkage of external demand. To date, successive "Action Programs" have been heralded with much fanfare but have delivered little tangible result. Japan's domestic demand growth proved less strong than expected in 1986, seems destined to sag in 1987, and is at risk of slump unless confidence is revived through positive policies not yet fully in place.

Although last year's yen rise and oil price collapse conferred terms-of-trade gains on the economy exceeding 2% of GNP, Japan's consumers saw little benefit. Consumer prices were practically unchanged overall, in no way paralleling the steep fall at the wholesale level (see Table 2). Personal consumption also was held down by low wage gains: by December, these ran a mere 0.5% in manufacturing, including bonuses, and only 2.6% year-on-year in industries generally. Further drag stemmed from a rising unemployment rate, which recently nudged 3% officially and is in double-digit territory when defined

Table 1

Japan's real GNP and external balances

percent change from previous year, except as noted

	1985	*1986*	*1987*
Real GNP	4.7	2.5	2.0
*Domestic contribution**	3.5	3.8	3.1
*Foreign contribution**	1.2	—1.3	—1.1
Domestic demand	3.8	4.0	3.2
Personal consumption	2.6	2.7	2.9
Government consumption	2.0	6.6	1.2
Business fixed investment	12.3	6.4	3.7
Government fixed investment	2.6	10.1	8.5
Exports	5.3	—4.8	—4.2
Imports	—0.1	3.3	2.8
External balances, billions of dollars			
Trade, FOB	56	93	80
Current account	49	86	78

*Percentage points.

Table 2

Inflation in Japan

percent change, December over December

	1985	*1986*
Consumer prices	1.8	0.1
Fuel and electricity	—1.4	—10.1
Wholesale prices	—4.2	—9.9
Domestic nonfood manufacturing	—2.1	—2.7
Petroleum and coal	—4.3	—41.8
Import prices	—19.6	—34.0
*Wages**	1.3	2.6

*Cash earnings, including bonuses, of regular workers.

broadly (see discussion on page 10). Wage and employment trends do not support a stronger consumption path for 1987. Nor is Japan's business investment outlook reassuring. Outlays may not actually decline this year, as some surveys have predicted, but their strength clearly is ebbing: investment growth in 1986 was barely half the 12% of 1985.

That the economy was headed for rough waters was not wholly unforeseen in Japan. In October 1985, as the dollar headed lower, Prime Minister Nakasone established an Advisory Group on Economic Structural Adjustment for International Harmony — the so-called Maekawa Committee — to study policy measures to help Japan adapt to the new world realities. The Committee's first report, released in April 1986, called for a more open economy, relying principally on domestic demand for growth. The same theme pervades the Committee's final report, presented to the Prime Minister just this month. It notes that Japan's economic growth is not accurately reflected in the quality of everyday Japanese life: housing standards are low, the cost of living high, and working hours long. The first report did not attract the endorsement of the governing Liberal Democratic Party (LDP). Substantive policy changes were slow to follow, especially where they would undermine the official commitment to fiscal restraint. Thus the budget just passed for FY1987, which commenced April 1, prescribes slowing public-sector consumption. It remains to be seen whether the final report leads to more positive action.

Meanwhile, Japan's exports are suffering not only from yen appreciation and sluggish growth of its foreign markets but also from protectionism — increasingly, in Europe as well as the United States — bred by the sheer size of Japan's trade surplus, its geographic and product concentration, and the perceived resistance of Japan's markets to foreign penetration. Even if foreign markets remain reasonably open to Japanese products — an assumption that the U.S.-Japan "chip wars" render questionable — Japan must reconcile itself to substantial declines in net foreign demand during the next several years.

At a minimum, successful adjustment, not to mention responsible participation in the world community, requires that Japan step up its foreign aid on an untied, multilateral basis. More profoundly, Japan must put aside mercantilist notions of *absolute* advantage in its international trade, and instead come to grips not only with its true *comparative* advantages but equally with its comparative disadvantages in agriculture and in those manufacturing activities that should be passing to LDC and other producers. At home, therefore — with languishing domestic demand, substantial excess capacity, and rising unemployment — it is urgent that the basic thinking of the Maekawa Committee be taken to heart.

On April 7, immediately before the IMF Interim Committee meeting in Washington, the LDP announced that it was "examining a framework" for unspecified stimulative measures — to be implemented over an unspecified period — carrying a total price tag of 5 trillion yen (1.5% of Japan's GNP, or about $35 billion). Political roadblocks are likely to prevent much positive impact on the economy this year. Yet if Japan is to stave off the risk of outright economic slump, it is vital that incremental stimulus of at least this general size be implemented with all possible speed and at the full force advertised — in other words, without offsetting contractionary measures either this year or in the 1988 budget. Japan would do still better by joining a serious venture in international macroeconomic policy coordination, involving U.S. fiscal restraint plus a combination of monetary and fiscal stimulus in Europe as well as Japan. Coordination is the most constructive road for reducing international imbalances, promoting the health of the world economy, and assuring Japan's own prosperity.

Foot-dragging on Maekawa

Rarely does a society espouse sweeping reorientation of its economic goals and policies with open arms. Japan's response to the Maekawa report has proved no exception, since the Committee's thrust seems to run at odds with the approach that has yielded substantial economic success in recent years. Of course, the report's recommendations had no binding force and its principal function has been to legitimate Japan's debate on its own future. Mr. Maekawa has recently noted that Japan's capacity to expand domestic demand is limited. His pessimism doubtless reflects awareness of the power of entrenched interest groups to block significant change.

Most Japanese cling to the hope that foreign exchange markets will either move in their favor or at least get them back to the business of profitable exporting, and thus help obviate the need for thoroughgoing structural adjustment. This hope had some substance while the yen-dollar rate was fluctuating within the fairly narrow Y150-Y165 range from the second quarter of 1986 through this March. Several export-dependent industries, notably makers of electrical and general machinery, have continued to report profits that compare favorably with less-exposed sectors, albeit much below the bloated levels of 1985. One recent survey suggested that profits of most Japanese firms could recover from a Y150 rate by the end of 1987. Another predicted a 25% rise in manufacturers' profits this fiscal year, recouping much of the 1986 drop. With the yen recently passing the Y140 level, there is active contingency planning for export survival under an ever-strengthening currency. Important sections of the business community also have come to understand the need for stimulative domestic policies. But the case seems less accepted by government, and at the popular level arguments counseling Japan against basic policy change largely retain their sway.

Some of these arguments maintain that all is well with Japanese policies and that problems emanate from without, reflecting the creditor view that debtor countries are responsible for changing their own policies in the interest of external adjustment. It is contended that the United States, if it wishes to correct its present trade deficit, must bite the bullet of budget-deficit reduction to cut consumption and boost domestic savings. In addition, U.S. exports must become more attractive in the Japanese and world markets by (generally unspecified) steps to boost the quality and market appeal of U.S. products — but without further appreciation of the yen, since the yen already is said to have risen well above the level corresponding to purchasing power parity (PPP).

Yet, as this article later makes plain, U.S. fiscal action taken by itself is no panacea for the problems of the world economy. The contractionary global demand consequences of U.S. deficit cutting are a major reason why Japan should reorient its own policies. On U.S. competitiveness, few would question improving the nonprice appeal of U.S. products, but the goal does not lend itself to instant success.

Table 3

Japan's bilateral trade balances

billions of dollars at annual rates, not seasonally adjusted

		3 months ended Feb 1987	
	1986	*Actual*	*Change from year earlier*
United States	51.4	48.0	3.5
Canada	0.6	0.5	0.1
Western Europe	19.4	22.5	5.1
Southeast Asia	12.3	12.8	10.1
Hong Kong	6.1	6.1	1.1
Korea	5.2	5.0	1.1
Singapore	3.1	3.0	0.9
Taiwan	3.2	3.8	2.0
China	4.2	2.9	—0.8
Middle East	—8.6	—10.0	12.0
Latin America	3.3	3.0	0.2
Other	0.1	1.0	0.7
Total	82.7	80.7	30.8

As to the price factor, PPP analysis provides no definitive conclusion: using a base period of 1982, when the yen was depressed and averaged 250 to the dollar, subsequent relative wholesale price inflation suggests an equivalent 1987 exchange rate of Y200. But the yen's 1982 rate was inconsistent with reasonable balance of payments equilibrium, since Japan's surplus already was expanding sharply at the time. More relevant to today's adjustment challenge is the yen's 1978 peak. That year's monthly average high of Y184 to the dollar translates, after inflation adjustment, to a 1987 average rate of Y132.

Japan's business community opines that reduction in the Japanese share of overseas markets through yen appreciation will go overwhelmingly to the advantage of the newly industrialized countries (NICs). The NICs indeed stand to benefit, but it goes too far to claim that U.S. firms will not. After all, the U.S. government is pressing the case for currency appreciation on Taiwan and Korea — the two NICs with truly egregious surpluses in their U.S. bilateral trade. Given that Japan's surplus with those NICs is high and rising (see Table 3), their currencies may not appreciate significantly against the yen, but have begun to do so against the dollar.

At root, some Japanese observers reject major narrowing of the current account imbalance, arguing that it is Japan's rightful "turn" to run large current account surpluses. They averaged 2.3% of GNP in the last six years, ran 4.4% of GNP in 1986, and on Japanese forecasts will fall no lower than 2% of GNP in the years ahead. In historical perspective, Japan's current account surpluses may not seem excessive: between 1850 and 1913 current account surpluses were endemic to the United Kingdom, peaking at over 10% of GNP; but U.K. current account surpluses then, unlike Japan's today, were accompanied by growing trade *deficits* and fairly open domestic markets. U.S. current account surpluses after the two world wars were comparatively small and disappeared quite quickly once damage to other nations' manufacturing capacity was made good.[*]

The view of Japan's external surplus as fundamentally structural derives seeming support from findings of low price and income elasticities for Japan's imports, such that a 1% increase in GNP would increase them noticeably less than 1% — barely half the responsiveness estimated for U.S. imports. Of course, market-opening measures should be increasing Japanese elasticities. But even if they remain low, the implication is not that the surplus must continue but rather that its reduction requires proportionately greater domestic demand stimulus or exchange rate change than would be needed to address a hypothetical U.S. surplus.

Nor can it be argued that Japan's external surplus represents an unchangeable imbalance between domestic savings and investment. Japan's savings propensity long has been higher than those of other industrial countries, reflecting the nation's innate thrift, high land and housing prices, tax incentives, and other conditions that are difficult and slow to change. Still, Japan's gross private savings rate has come down noticeably over the years, from almost 31% of GNP in 1972 to a little over 26% by 1984. Besides, Japan's high savings used not to, and need not now, materialize as large external surpluses. Prior to

---

[*] In each of the five-year periods from 1850 through World War I, Britain ran large and, for the most part, growing trade deficits that were more than offset by surpluses on services and investment income. Between 1919 and 1923 the U.S. surplus averaged 2.3% of GNP, but subsequently fell sharply to less than 1%; it averaged 1.7% of GNP in 1946-49, but was in deficit for five out of the six succeeding years.

Chart 2

Real GNP and domestic demand

annual average rates of growth in percent

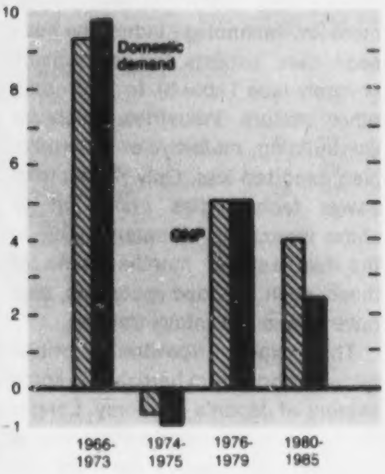


Table 4

Manufacturing output and employment

percent per annum

	1973-1979	1980-1984	1985-1986*
Output			
Japan	3.6	7.7	2.1
United States	2.0	1.3	2.1
Canada	2.7	—0.1	3.2
France	3.0	0.3	0.5
Germany	1.7	0.2	4.0
Italy	3.1	0.9	2.2
United Kingdom	—0.7	—1.7	1.7
Employment			
Japan	—1.4	1.6	0.2
United States	0.8	—1.6	—0.5
Canada	0.2	—2.7	2.0
France	—1.0	—2.1	—2.5
Germany	—1.6	—2.1	1.5
Italy	0.3	—2.2	—1.9
United Kingdom	—1.3	—5.3	—0.4

*The output data for 1985-86 are taken from industrial production figures, while earlier periods record value-added in the GNP accounts. Industrial production data for 1973-79 and 1980-84 show the same cross-country pattern as seen here, but differ because of productivity change.

the first oil shock, Japan's rapid economic growth normally generated business investment sufficient to absorb private savings. Later in the 1970s, when business investment dropped more than private savings relative to GNP, the newly available savings excess financed an expanded budget deficit. Altogether, output and domestic demand rose in tandem in both the 1960s and 1970s (see Chart 2), with no clear tendency toward imbalance either way.

Against this historical record, Japan's 1980s' experience should be judged an acute aberration. Net exports furnished almost 40% of Japan's real GNP growth during the first half of this decade, reflecting world-market competitiveness, the restrictive bent of Japanese fiscal policy after 1979, and the opposite U.S. tack soon thereafter. Despite the consequent mushrooming of Japan's current account surplus and the failure of domestic business investment to recover past dynamism, the government has been averse both to a major step-up in foreign aid, which could absorb excess domestic savings, and to meaningful fiscal stimulus, which would boost domestic consumption and investment. The Ministry of Finance has yet to abandon its long-held goal of eliminating deficit-bond financing of the general-account budget by FY1990, a goal that would tighten the fiscal posture by a further 1.6% of GNP.* Such negative macroeconomic policies can only worsen the imbalance of domestic savings and investment and, still more, Japan's overall economic prospects.

Japan's manufacturing and export dependence

In their heyday, manufacturing output, productivity, employment, and export achievement were the building blocks of Japan's spectacular economic progress. Although manufacturing output languished elsewhere in the industrial world following the first oil shock, it forged ahead in Japan. The performance differential again widened in Japan's favor after the second oil shock. Its manufactures output gained almost 8% annually from 1979 through 1984 (see Table 4), contributing 61% of overall GNP growth. The manufactures output gain in this period, of which *three-fifths* went to export, occurred through fast-rising productivity and continuing employment gains at a rate of just under 2% per annum. This maintained the share of the manufacturing sector in Japan's employment, whereas Europe's manufacturing saw virtual stagnation of output and a drastic decline in employment. In the United States, where job losses in manufacturing averaged 1.6% per annum during the same period, the dollar's strength was widely held to be precipitating "deindustrialization." In fact, based on domestic demand, U.S. manufacturing broadly held its own in GNP terms and its output growth ranked second among the G-7 countries. This U.S. experience argues that, while industrial change is inevitable, deindustrialization is not — and need not be so for Japan today, provided domestic policy is expansive.

But domestic policy has not been expansive in Japan. Since the dollar's turnaround in February 1985, Japan's manufacturing output growth has sagged to about 2% annually — a sorry comedown from Japan's post-reconstruction record. Moreover, its manufacturing em-

---

*Because the over-65 population is rising faster in Japan than in other industrial countries, it is often argued that Japan's public sector must at least eliminate budget deficits. Although social spending will rise sharply relative to GNP by 2025 — albeit less so were GNP to rise rapidly — a recent IMF study concludes that Japan's spending will remain below levels borne in 1980 by several European nations that lacked sizable net foreign assets.

Table 5

OECD manufactures trade, 1984

	Exports as % of total exports	Imports as % of total imports	Imports as % of exports
Japan	98	28	23
United States	72	71	158
Canada	62	83	115
France	76	59	87
Germany	89	61	61
Italy	87	49	63
United Kingdom	69	69	112
OECD total	76	62	88

Table 6

Intra-OECD export shares, 1984*

in percent

	Japan	United States	Germany
Chemicals	3	19	23
Pharmaceuticals	3	21	18
Semifinished manufactures	8	10	19
Iron and steel	14	4	22
Machinery	22	29	19
Office and data processing	24	44	10
Telecommunications	60	15	10
Vehicles	25	26	20
Vehicles, adjusted**	37	2	31
Other transportation	8	39	9
Miscellaneous manufactures	11	19	18

*A given country's exports to all OECD countries, as a share of total OECD imports excluding that country.
**Excluding trade between the United States and Canada.

ployment has wilted 0.7% since mid-1986. At the same time, Japan's manufacturing sector belatedly is having to grapple with adjustment problems familiar to its U.S. and European competitors, including the migration of many standardized manufacturing technologies and production capacity to lower-wage countries.

Japan's manufactures export volume, which peaked nearly two years ago, has subsequently dropped some 8%. Manufactures account for virtually all Japan's exports but, prior to 1986, less than 30% of imports. By contrast, for members of the Organization for Economic Cooperation and Development (OECD) on average, manufactures account for 76% of exports and 62% of imports (see Table 5). To a large extent these differences are the natural consequence of Japan's relative scarcity of physical resources, which forced it to develop and exploit a comparative advantage in manufactures. Apart from chemicals, Japan captures a disproportionately large share of world manufactures import markets. Japanese producers provided 22% of OECD machinery imports by 1984 and, in such prominent product categories as telecommunications, as much as 60% (see Table 6).

In turn, for many Japanese producers a major fraction of output goes to exports. Shipbuilding is the most exposed sector, with export contracts accounting for up to three-quarters of production in recent years (see Table 7). About half of domestic production is exported by both the automobile and electronics industries. Even such natural-resource-based industries as fibers and cement export a significant share of production.

Ironically, Japan's manufactures-export success renders it vulnerable to adverse trends in foreign markets and the yen exchange rate. When the yen was weak during the first half of the 1980s, textiles and television shipments expanded sharply, and even cement and steel exports rose somewhat. Since 1985, most low-technology industries have seen their exports fall, sometimes severely (see Table 8). In 1986 some other mature industries, such as shipbuilding, motorcycle, and radio, also exported less. Only products of newer technologies continued to show increasing shipments. But in the last several months some of these, such as video recorders, also have joined the minus column.

The export downtrend brings genuine short-term hardship to some sectors of Japan's economy. Longer term, the continuing profitability of an industrial strategy that has emphasized product development attuned to export potential, especially in the U.S. market, now stands in question. So too does the wisdom of a macroeconomic stance, working through the exchange rate and subdued domestic demand, that preserves export share for Japan in products better suited to other countries on comparative advantage grounds. As some in Japan are coming to realize, the nation cannot pursue across-the-board export dominance in manufacturing, yet blithely expect its trade partners to acquiesce; nor would such dominance be consistent with the satisfaction of Japan's domestic consumers' needs, most conspicuously in the areas of housing and social infrastructure.

Limited results from market opening

Japan has adopted two main tactics to contain the frictions occasioned by its successful penetration of foreign markets. One tactic, initially adopted under foreign pressure and now espoused by domestic producers, has been to impose "volun-

Table 7

Japan's export dependence

shipments as percent of domestic production, fiscal year data

	1983	*1984*	*1985*
Electronics and electrical machinery	47	48	46
Automobiles	51	53	55
Nonelectrical machinery	30	31	31
Shipbuilding	72	75	68
Iron and steel	35	34	33
Petrochemicals	11	10	10
Synthetic fibers	25	24	27
Cement	17	14	12

Table 8

Japan's export adjustment

selected products

	Percent volume growth		*1986 value as percent of total exports*
	1980 to 1985	*1986*	
Electrical products	60	—3	20.2
Tape recorders	230	8	3.5
Televisions	56	—42	0.8
Radios	15	—14	1.3
Automobiles	18	0	15.8
Motorcycles	—28	—32	1.0
Shipbuilding	45	1	2.3
Steel	10	—9	6.1
Synthetic yarns	10	7	0.3
Cotton fabrics	41	0	0.4
Synthetic fabrics	12	—10	1.0
Cement	4	—38	0.1
Total	41.3	—1.3	

tary" restraints on sensitive exports, an approach that is fundamentally anti-market and enormously costly to the affected would-be consumers of Japanese products. The second tactic has responded to the foreign perception of domestic-market closure by launching a procession of plans, programs, measures, and actions that by now are supposed to have rendered Japan's goods markets — in manufactures, at least — the most open in the industrial world.

Yet, by virtually any yardstick of actual performance, Japan's manufactures imports are extraordinarily low — 4% or less of intra-OECD trade in all principal manufacturing sectors except chemicals (see Table 9), even though Japan accounts for almost 20% of OECD GNP. The much smaller German economy imports vastly more, even in such competitive specialties as chemicals and motor vehicles. Of course, Germany's economy is closely integrated with those of its immediate European neighbors, so its import behavior hardly settles the question of Japan's openness. Still, the United States, which used to display a continental self-sufficiency, now absorbs the largest share of intra-OECD manufactures imports, roughly in line with its 35% share of OECD GNP.

Japan's propensity to minimize reliance on imports sometimes has a rational basis in security and cost considerations or in evolving technology and final demand structure. For example, its efforts to adjust to the oil shocks of the 1970s increased the efficiency with which Japan uses such imported raw materials as crude oil, coal, ferrous and nonferrous ores, and metals (more recently, weakening export demand has further slashed Japan's materials imports). The adjustment story has been quite different where comparative advantage should have pointed to reduction of domestic production rather than imports. For example, contraction of the coal industry has been drawn out over at least thirty years, and its end is not yet at hand. The primary purpose of the government's list of "designated depressed" industries has been to allocate domestic production cutbacks, not to eliminate domestic producers.

Where Japan cannot escape reliance on imported raw materials, there is a strong tendency to keep processing within Japan. Only 10% of cotton yarn or petroleum products are imported, even though Japan does not produce the raw materials concerned. Until 1984 — more than a decade after the first oil shock — Japan was slow to permit imports of petroleum products and basic petrochemicals. When product imports were belatedly allowed, the government and domestic producers agreed to require importers to maintain unused domestic capacity, thereby giving traditional producers significant monopoly power that is supported by a still-continuing ban on direct imports by retailers. In only two areas, aluminum and copper, have imports captured a substantial share of domestic consumption. Even here the imports tend to come in crude or semifinished form, such as ingots. In the case of aluminum, tariffs explicitly discourage fabricated imports from foreign companies except in limited circumstances.

Japan protects its agricultural sector at immense consumer cost. Although it is the leading industrial-country importer of U.S. agricultural exports, Japan's gross agricultural imports are less than those of the United States in total dollar value and, as a net share of GNP, fall short of those of Germany, Italy, or the United Kingdom (see Table 10). These patterns do not reflect superior efficiency in Japanese agri-

Table 9

*Intra-OECD import shares, 1984**
in percent

	Japan	United States	Germany
Chemicals	8	13	14
Pharmaceuticals	12	14	12
Semifinished manufactures	3	22	14
Iron and steel	1	29	14
Machinery	3	30	10
Office and data processing	3	20	12
Telecommunications	1	42	10
Vehicles	1	42	6
*Vehicles, adjusted***	1	36	9
Other transportation	7	18	21
Miscellaneous manufactures	4	20	14

*Imports as a share of total intra-OECD imports.
**Excluding trade between the United States and Canada.

Table 10

Food imports, 1984

	Gross food imports, $ billions	Net agricultural imports*: Percent of domestic production	Net agricultural imports*: Percent of GDP
Japan	15	34	1.1
United States	19	—6	—0.1
Canada	4	—34	—1.1
France	10	—12	—0.5
Germany	15	64	1.2
Italy	9	26	1.5
United Kingdom	11	79	1.5

*Includes forestry and fishing.

culture, for the country provides the industrial world's highest subsidies and price supports.* Agriculture has been a principal target of Japan-U.S. "market-oriented, sector-specific" (MOSS) negotiations. The results have been disappointing. Beef and orange import quotas, although sharply raised in percentage terms, remain low relative to either Japanese or world per capita consumption. Tariffs and distribution practices disadvantage imported cigarettes and high-quality spirits. And, despite mounting domestic dissent, rice remains untouchable, with the U.S. government quickly backing down in the face of Japanese reaction to the U.S. rice-millers' complaint last fall.

The MOSS talks have generated some progress in specific industrial sectors, such as pharmaceuticals and telecommunications, and on specific issues, such as international standards and government contracting. But there has been backsliding too. Nippon Telegraph and Telephone (NTT) has argued that its privatization invalidates an earlier agreement on government procurement, suggesting NTT may return to its earlier practice of buying high-technology items almost exclusively from privileged domestic suppliers. The proclivity of private groups to formulate "Japanese" standards in preference to international ones has not diminished. Just last year Japanese ski makers sought exclusionary standards on the pretext that Japanese snow is "wetter."

Official discrimination against foreign firms often remains blatant. It appears that no more than half the approximately $7 billion in contracts relating to the New Kansai airport, a quasi-governmental project, will be put to open bid accessible to foreign firms. Licensing authority has been used to constrain sharply the only consortium that would have used foreign equipment in the cellular phone market. There is reluctance to allow foreign firms a significant role in providing international phone links to Japanese firms, despite initial promises that foreign firms would be allowed a management role and up to one-third of the equity in such ventures. These telecommunications issues now are entangled in the long-running semiconductor dispute. The Japanese government took six months to formulate production guidelines to help enforce last fall's U.S. bilateral accord against below-cost sales. The alleged failure of several Japanese firms to honor the accord has now resulted in punitive U.S. tariffs on selected Japanese products. No resolution of the current "chip wars" is likely to be durable, since in high technology both nations lay claim to comparative advantage.

In opening markets, the proof of the pudding must lie in the eating. The volume of Japan's goods imports rose more than 12% overall in 1986, but their seeming strength was biased upward by the tripling of gold imports (see Table 11). Excluding these, total imports rose almost 8% and manufactures imports 13%. These were sizable percentage gains, as were the sector figures for plastics, steel, automobiles, and aluminum products. But the increases occurred from very low base levels. In practice, Japan's domestic markets are not the model of openness and transparency that the government and business community are wont to declare.

Growth-stifling domestic policies

Paralleling the numerous Action Programs to open Japan's domestic

---

*A World Bank study found that in the early 1980s Japanese prices exceeded world prices by 108% to 144% for seven product categories; comparable U.S. prices were just 16%-17% higher than world levels. Since then the relatively high protection afforded Japanese agriculture probably has risen substantially in step with the yen's appreciation.

Table 11

Japan's import adjustment

	Percent volume growth		*1986 value as percent of total imports*
	1980 to 1985	*1986*	
Food	26	13	15.0
Textile materials	10	0	1.5
Ores and concentrates	—5	—5	4.6
Lumber and other raw materials	—1	2	7.6
Fuel	—6	3	29.9
Coal	36	—2	3.9
Crude oil	—23	—3	15.9
Petroleum products	53	30	3.7
Manufactures	54	13	35.8
Chemicals	44	5	7.7
Plastics	49	40	0.8
Machinery	16	8	11.6
Automobiles	10	40	0.9
Steel	84	17	1.4
Copper	39	—21	0.4
Aluminum	68	—13	1.3
Gold	448	206	5.4
Total	3.4	12.5	100

Table 12

Fiscal policy

data are for general government as percent of GDP

	Actual budget balance, 1986	*Change in structural budget balance, 1986*	*Net debt,* end-1985*
Japan	—1.5	0.5	26.5
United States	—3.4	—0.1	27.9
Canada	—5.4	0.9	33.1
France	—2.9	—0.3	16.6
Germany	—1.0	—0.3	23.0
Italy	—12.5	1.2	95.7
United Kingdom	—3.1	—0.7	47.6

*Gross debt net of intragovernmental holdings.

markets has been a succession of promises to stimulate domestic demand. In practice, delivery on these promises has fallen victim to fiscal restraint, with the unhappy result that Japan's domestic demand growth in the 1980s has run markedly lower than in the 1970s, let alone the vintage years before the first oil shock. Last year's oil-price collapse helped boost domestic demand, but that boost now seems to be fading, and with it the hope of stronger economic performance.

Japan's commitment to fiscal restraint stems from its 1970s' experience. Private demand was so weakened by the austerity used to fight inflation after the first oil shock that the government felt obliged to step in, particularly boosting its investment. The general-government deficit reached 5.5% of GNP by 1978 — eclipsing today's U.S. deficits and stirring deep anxiety in Japan about the supposedly adverse implications of the fast-rising stock of government bonds. Even as the second oil crisis struck, the growth of government spending was cut back sharply. Fiscal policy has been austere ever since, bringing the deficit down to 1.5% of GNP in 1986, at which level it absorbed barely one-seventh of net private savings. The ratio of gross general-government debt to GNP, which has stabilized below 70% since 1983, still sounds high relative to the under-50% U.S. figure. But much of Japan's gross debt represents cross-holdings among government accounts; at the end of 1985, Japan's net debt was under 27% of GNP, slightly below the U.S. figure (see Table 12).

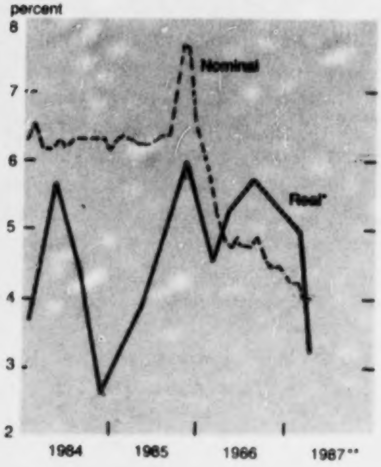
Thanks to the primacy given fiscal restraint, Japan's successive Action Programs during the 1980s have done little or nothing for constructive macroeconomic adjustment. Admittedly, expanded financing from the government's Housing Loan Corporation has been a success. Housing starts in the last half of 1986 were up 17% over the same period of 1985, reversing their decline and stagnation earlier in the decade. Yet starts now have plateaued significantly below the pre-1980 pace. The current pace may be sustained by recent interest rate declines for another year or so, but will wane over the longer run unless the government renews the housing program on generous terms.

Otherwise, given that overall economic growth has faltered, it is tough to discern positive effects from the three action packages of October 1985, April 1986, and September 1986. On average, *each* was supposed to add 1% to real GNP growth but actually often focused on shifting the timing of expenditures so as to boost growth in a particular fiscal year. Little benefit has come of the promises of increased public-works spending and privatization. Government consumption has remained fundamentally cautious, with the official figures for 1986 exhibiting a merely temporary boost through the minting and sale of gold coins commemorating the 60th year of Emperor Hirohito's reign. Last fall there were rumors of a large Action Program amounting to about $20 billion, or 1% of GNP. The subsequent supplementary budget provided only about 0.2% of GNP in additional bond financing and even this modest stimulus is thought to have been neutralized in practice.

Later, the government's FY1987 budget turned out restrictive. The cyclically adjusted budget balance is estimated to move toward surplus by about 0.5% of GNP, continuing the austere established trend. Although defense spending should finally break the 1%-of-GNP barrier this year, general-account spending is set to increase a mere 0.5% in total and to decline if debt service and local transfers are excluded.

Chart 3

3-month Euroyen deposit rates

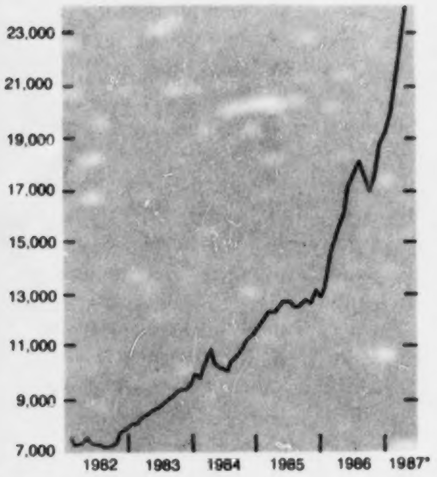


*Deflated by centered 6-month rates of change in consumer prices including projections for 1987 when necessary

**Latest plotting April 24.

Chart 4

Nikkei stock index
monthly averages



*Latest plotting April 24.

Bookkeeping changes allow the fiscal investment and loan program, which channels funds from various government sources to special spending programs, to show a 22% increase over FY1986. However, budgeted spending under this program is to rise only one-third as much — little faster than in the previous year.

Meanwhile, the ongoing tax-reform debate has been predicated on revenue neutrality, give or take timing issues. The government's proposal, now in abeyance, would have cut corporate and individual income taxes in stages beginning this month, while introducing a new savings tax in October and a new value-added tax (VAT) in January 1988; the combination would have been approximately neutral for domestic demand in the first two years, and mildly restrictive thereafter.

Yet private domestic demand looks lackluster at best. In the current spring wage round, unions seem ready to accept exceedingly modest contract increases in manufacturing — of around 1.5% in steel and shipbuilding and 3%-3.5% in the electronics and automobile industries — pointing to further wage deceleration that will restrain private consumption. As for business investment, excess capacity and poor sales prospects in manufacturing and declining profits in nonmanufacturing are compelling disincentives, even assuming some marginal further easing of monetary policy — until recently, despite low nominal interest rates, real rates in Japan have been high (see Chart 3). Relative to the economic fundamentals, this year's boom on the Tokyo stock market (see Chart 4) is something of a puzzle. Perhaps it reflects an overly rosy profit outlook for manufacturing and a reevaluation of Japanese corporations' substantial hidden assets, especially land: land prices jumped 7.7% last year nationwide, and in Tokyo by ten times as much. But in Japan, as elsewhere, a strong stock market is no guarantee of robust economic growth.

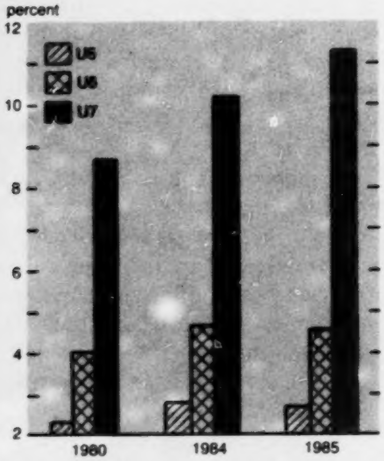
With growth actually flagging in Japan, it is no surprise that unemployment is becoming a significant issue. According to the official definition, unemployment rose to 2.8% in 1986 and hit a record high of 3% last January. However, this greatly underestimates the degree of labor-market slack. When demand is slack, Japanese workers are retained by their firms much longer than in the United States — performing less productive tasks, such as repainting the plant — and are more likely to be put on part-time. Many of Japan's part-time workers move in and out of the labor force without declaring themselves unemployed. Broad definitions of unemployment attempt to capture these characteristics (see Chart 5). Detailed surveys, which are published only after a long lag, estimate the broad unemployment rate to have topped 11% as of early 1985. By now it may well be in the 12% to 13% range, substantially above both the comparable U.S. figure of 10% at the end of 1986 and the 8.7% for Japan at the beginning of this decade.

A real Action Program?

Belatedly accepting the "principle of domestic demand expansion," the LDP announced on April 7 that it was examining a "framework" for public-works spending amounting to about 5 trillion yen. Possible measures include: an acceleration of spending included in the FY1987 budget, with about 80% of projects to be initiated in the first half of the fiscal year, followed by extra spending through next fall's expected supplementary budget; more generous financing through the

Chart 5

*Unemployment in Japan**



* U5 is the official unemployment figure, adjusted to the U.S. definition, as a percent of the civilian labor. U6 includes some of those on part-time hours who desire more work, as well as those counted as employed but actually not working. U7 adds estimates of discouraged workers – those who have given up searching for a job because they cannot find employment. In January 1987, when the official unemployment rate hit 3%, 1.7% of the labor force were employed but not working, and another 15.4% were working part-time.

Source: U.S. Bureau of Labor Statistics

Housing Loan Corporation; grants and low-interest loans for depressed regions; construction of new "bullet train" lines; and, to provide requisite funding, use of some proceeds from the NTT privatization or additional construction-bond issues.

The timing and magnitude of the framework's implementation remain unclear, not least because of the LDP's political difficulties. Further details of the framework package may surface during Prime Minister Nakasone's Washington visit this month, but it will be several months more before it becomes clear how much represents truly new spending, that is, spending over and above the level included in the budget just approved. With the proposed VAT now doomed to extended delay or outright abandonment, the most likely outcome could be that the entire tax-reform package is revised; net corporate and personal income taxes are cut toward the end of this year by about 1.5 trillion yen, 0.5% of GNP; and 1987-88 public-works spending is boosted by a similar amount over the FY1987 budget figure.

Although these measures likely would little affect this year's outcome, real GNP growth next year should pick up to 3% or so. Even then, Japan's growth in 1988 would run at best a percentage point or more below its 4.5% potential and its inflation rate likely would remain below 1%. Moreover, Japan is likely to make little headway in bringing down its outsize current account surplus. Ever-rising investment income will offset much of the decline in Japan's trade surplus, probably leaving the 1988 current account surplus only $10 billion short of last year's record level.

A coordinated approach

Without question, more vigorous economic growth in Japan would make major positive contributions not only to the well-being of Japan's consumers but also to the world economic outlook generally. Still, especially in the United States, this month's microchips skirmish has focused attention lopsidedly on Japan's role in global betterment, neglecting the equally vital parts to be played by the other key actors – the United States and Europe.

Industrial-country growth may be lucky to average 2.4% for 1987. Yet there is near-universal agreement that a rate of 3% or better is needed to make worthwhile inroads on unemployment, provide a healthy background for working down trade imbalances, and ameliorate LDC financing and growth problems. Unfortunately, such agreement commands lip service, but little political commitment, on the part of the major countries – not only Japan, as this article has shown, but also the United States and Europe. With this month's renewed fall in the dollar, the apparent upsurge in U.S. inflationary expectations – exaggerated as this may be – and the turmoil in U.S. money markets, U.S. policymakers display no clear sense of their best way forward. Nor should the immobilism of Europe's policymakers be overlooked: the 3%-or-so growth prospect officially celebrated for the United Kingdom this year is impressive mainly against the dispiriting prospects elsewhere; forecasters have been falling over themselves recently to mark down their 1987 expectations for the key German economy – some now put its growth at 1.5% or less – with companion downgrades for its continental neighbors.

As so often in the past, breaking out of an international impasse requires that U.S. leadership assert itself. It must deliver the key U.S. contribution, which on this occasion is reduction of the federal budget deficit. A $30 to $40 billion reduction this fiscal year seems well in hand. For FY1988 both House and Senate budget committees seem headed for a $35 to $40 billion cut, drawn equally from tax hikes and spending reductions. Assuming the package relies on consumption taxes and genuine spending cuts, the Administration should lend its support. With Japan now coming to accept the need for stimulative policies itself, there is emerging scope for a joint U.S.-Japan approach to European leaders for stimulus there also, in order to assure that domestic demand growth in Japan and Europe together outweigh the contractionary impact of U.S. fiscal action on world demand. Such an international package would help stabilize the dollar, calm financial markets, and open the way in due course for lower U.S. interest rates.

A package along these lines can be simulated by the University of Pennsylvania's Project Link model.[*] The results turn out to involve no significant exchange rate changes from present levels and are predominantly positive. OECD growth rises by over 0.5% next year, and the level of output is over 1% higher by 1991. Growth rates rise 1½-2 percentage points next year in both Japan and Germany. Japan's budget deficit rises to 2.5% of GNP in 1988, but declines to 2% or less by 1991 — and thus benefits from the fact that its fiscal expansion is not undertaken alone but as part of an international package. Japan's current account surplus shrinks from the $78 billion expected this year to under $60 billion, about 2% of GNP, in 1991.

Although with this package U.S. real GNP growth falls slightly at first, it picks up by 1989 as lower interest rates and an improving current account come to outweigh fiscal contraction. The federal budget deficit falls from the $165 billion expected this year on the NIA basis to about $130 billion in 1991; over the same period, the general-government deficit shrinks from $110 billion to $60 billion, barely more than 1% of GNP. The U.S. current account deficit falls from $130 billion this year to the $100-$110 billion range by the end of the period, and the trade deficit below $100 billion. Some of the improvement is attributable to the policy package, the rest to the exchange rate adjustments that already have occurred.

These gains are not costless. According to the Link model, inflation rates in Germany and Japan average about 0.5 to 0.7 percent higher annually than without the policy package. However, the Link estimates are heavily influenced by experience during the late 1960s and 1970s, when capacity was under pressure in both economies. Other econometric models estimated over the same period suggest less inflationary impact. Moreover, since capacity constraints today are not a genuine worry, a lower inflationary cost can reasonably be expected.

While the benefits of the assumed package for world economic growth and correction of trade imbalances are positive, they are not fully adequate and certainly could be bettered. Several of the European countries excused from stimulus in the simulated package could help by forgoing the budgetary bonus they would enjoy from stronger world growth. A less restrictive fiscal stance in France, for example, would be a significant plus for Europe's growth and also lessen the current account deterioration experienced by Germany under the simulated package. Elsewhere, the Asian NICs, whose exchange rates have moved little despite the dollar's decline, could do much by way of currency appreciation and domestic stimulus. Even Latin America could find leeway to enhance its economic growth, thanks to a greater ability to import based on a more positive and secure export prospect. Nonetheless, a one-shot global coordination exercise would not lay all problems to rest. With the need to reduce further the twin U.S. deficits, another international package probably would be called for next year.*

---

[*] The key specific assumptions are: a $40 billion reduction in the U.S. budget deficit, split equally between tax and spending measures, to occur at the end of 1987; an equal boost in Japanese government spending, preferably focused on social infrastructure and foreign aid; and a $35 billion fiscal stimulus in Europe, two-thirds as tax reductions that would be consistent with many governments' intentions, if not their past delivery. The European stimulus is allocated to Germany (80%), the Netherlands (10%), and Switzerland (10%) — that is, in rough correspondence to their large current account surpluses in 1986. No fiscal stimulus is assumed in France, given that its triumph over inflation is not definitively established; in Italy, in view of its gargantuan budget deficit and healthy economic growth; or in Britain, where the policy stance is already expansive and short-term growth prospects are favorable. Monetary policies are assumed to be mildly accommodative in all the major countries, with short-term interest rates cut 50 basis points initially.

In sum, Japan's emerging readiness to take substantive steps to strengthen its domestic growth is consistent with its international responsibility and presents the United States with an opportunity to break through the impasse in international policy coordination. Higher U.S. consumption taxes would be a modest price to pay for genuine political commitment on the part of Germany, as well as Japan, to building an action program to buttress growth, narrow trade imbalances, contain protectionism, and better the lot of LDCs. Such action is indispensable to establishing the fundamentals crucial for fostering financial market confidence and, especially, a modicum of the exchange market stability to which successive G-5 communiqués have aspired. At this stage, with Japan and much of Europe teetering at the brink of recession and the U.S. economy lethargic, growth-oriented policies are greatly preferable to further sizable dollar depreciation. In any event, depreciation will be hard to avoid unless such policies are put in place soon. The dangers of doing too much for growth are much less than the risks of inertia, given today's real urgency to secure macroeconomic policy support for world economic advance.

Statistical appendix

For key to data in tables see pages 22 and 23.

Effective exchange rates — industrial countries, 14

Real effective exchange rates — developing countries, 15

International banking market size, 15

International bond issues and bank credits, 16

Eurocurrency deposit rates, 17

International bond yields, 17

Central bank discount rates, 18

Day-to-day money rates, 18

Treasury bill rates, 19

Representative money market rates, 19

Commercial bank deposit rates, 20

Domestic government bond yields, 20

Commercial bank lending rates to prime borrowers, 21

Domestic corporate bond yields, 21

Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

---

*The character of a follow-up package would depend on behavioral responses to the first. If Japanese and European savers felt they could look forward to faster economic growth with less risk of unemployment, they might consume and invest more, amplifying the improvements in economic growth and the U.S. current account to a degree that no model can predict. However, news that the U.S. budget deficit was being cut more than expected and that Japan and Europe were actually implementing stimulative macroeconomic policies — signifying less reliance on dollar depreciation for external adjustment — could lead to upward market pressures on the dollar and diminish U.S. current account improvement. Only time can tell the outcome.

Effective exchange rates – industrial countries

Index numbers, 1980-82 average=100.

Nominal against 15 other industrial-country currencies

		United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Neth-erlands	Spain	Swit-zerland	Den-mark	Norway	Swe-den
1981		99.5	100.2	105.8	104.0	100.4	97.2	98.8	102.1	98.9	101.8	97.1	99.4	98.3	99.2	100.1	103.3
1982		109.8	99.4	98.6	100.1	93.1	102.8	92.8	98.1	101.7	92.3	102.7	94.1	106.3	95.7	101.7	92.8
1983		114.2	100.8	107.8	92.0	87.3	107.6	90.3	91.6	103.6	90.0	105.0	78.4	111.5	96.4	99.4	82.2
1984		122.4	97.3	113.0	94.2	84.4	107.4	86.7	88.1	103.6	88.9	104.0	77.4	110.5	93.9	97.8	84.3
1985		127.1	92.8	115.8	76.3	85.4	107.8	82.1	88.2	104.2	89.5	104.0	75.6	109.5	95.0	95.6	83.9
1986		106.0	87.6	150.1	61.4	87.4	116.1	82.9	80.7	107.8	92.9	110.3	73.4	118.1	99.7	89.3	81.6
1986																	
October		102.1	87.0	158.4	56.8	87.3	119.4	84.4	74.4	109.0	94.3	112.9	73.4	122.3	102.1	85.9	80.8
November		103.5	87.4	152.7	58.1	87.4	119.5	84.4	75.1	109.1	94.2	112.9	72.6	120.4	102.1	84.7	80.8
December		102.5	87.6	152.4	59.0	87.5	120.2	84.6	75.0	109.4	94.5	113.3	72.6	120.2	102.5	83.9	80.5
1987																	
January		98.5	88.1	156.1	57.2	87.4	122.2	84.0	74.8	110.4	95.9	114.9	71.9	121.7	103.9	83.8	79.9
February		96.9	89.7	156.4	57.2	87.9	122.7	83.9	74.8	110.7	96.4	115.0	71.3	121.4	104.6	84.4	80.0
March		96.0	90.5	157.9	58.3	87.3	121.7	83.3	78.1	110.3	95.7	114.1	71.1	121.4	103.7	84.7	80.6
March	*13*	97.0	90.0	156.5	58.4	87.1	121.4	83.2	78.5	110.2	95.6	113.9	71.1	120.8	103.6	85.0	80.7
	20	95.9	90.9	157.5	58.2	87.3	121.6	83.3	78.4	110.3	95.6	114.0	71.2	121.5	103.8	84.7	80.7
	27	95.1	91.1	159.9	58.5	87.3	121,6	83.2	78.4	110.3	95.7	114.1	71.0	121.8	103.7	84.9	80.7
April	*3*	94.4	91.0	162.5	59.1	87.4	121.8	83.2	77.9	110.3	95.8	114.3	71.1	121.9	103.0	85.1	80.8
	10	94.2	91.2	164.0	59.5	87.2	121.4	83.0	78.7	110.1	95.6	114.0	71.1	122.2	103.2	85.2	80.7
	17	93.7	90.2	166.7	59.7	87.3	121.5	83.0	78.7	110.1	95.6	114.2	71.0	123.2	103.6	85.6	79.4
	24	93.9	89.4	167.6	58.8	87.1	121.2	82.9	79.0	109.9	95.5	114.0	71.2	123.8	103.1	85.7	80.9

Real against 15 other industrial-country currencies

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Neth-erlands	Spain	Swit-zerland	Den-mark	Norway	Swe-den
1981	100.8	99.5	104.8	102.6	100.0	96.9	98.9	102.5	99.4	101.4	97.1	99.6	98.7	98.9	101.3	101.9
1982	109.3	100.6	92.4	105.7	97.3	99.9	96.5	98.8	101.2	91.9	100.5	99.0	103.0	97.9	103.2	95.6
1983	112.7	102.6	96.8	101.9	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.9	105.1	100.4	102.0	90.7
1984	119.6	100.2	97.8	106.4	97.0	98.0	101.8	90.2	103.0	85.9	97.8	91.1	100.1	99.2	100.5	96.0
1985	122.5	96.5	96.6	89.5	100.5	96.7	100.2	92.8	103.3	85.3	96.6	92.5	98.0	101.2	99.5	96.9
1986	101.6	93.4	119.3	78.8	102.9	103.5	102.9	87.5	106.7	84.7	101.5	94.3	105.7	107.6	97.1	96.1
1986																
October	97.7	93.7	124.2	75.3	103.6	105.9	104.8	80.9	107.3	84.6	104.4	94.7	110.2	110.5	96.4	95.5
November	99.1	94.0	119.3	77.1	104.1	105.6	105.0	81.7	107.5	84.6	104.6	93.9	108.1	110.4	95.8	95.8
December	98.0	94.2	119.0	79.5	104.1	106.0	105.4	81.7	108.0	84.7	104.6	95.6	108.2	110.7	94.2	95.8
1987																
January	94.5	94.6	120.9	77.9	103.2	108.7	105.1	82.3	109.3	85.5	104.6	93.4	108.7	111.4	94.3	95.7
February	93.3	95.6	120.7	78.2	104.1	108.6	105.0	82.5	109.6	85.5	104.8	93.9	106.3	112.9	94.7	96.3
March	92.5	97.1	120.9	80.2	103.9	107.8	103.8	86.2	106.7	84.3	104.4	94.4	108.1	112.3	95.3	97.3

Real against 18 other industrial-country and 22 LDC currencies

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Neth-erlands	Spain	Swit-zerland	Den-mark	Norway	Swe-den
1981	99.8	99.4	104.7	102.5	99.5	96.2	98.2	102.0	98.9	100.9	96.6	98.9	98.0	98.7	101.3	101.6
1982	109.6	101.6	94.0	105.2	96.9	99.4	98.1	98.5	101.1	91.6	99.5	98.9	102.6	97.7	103.0	95.4
1983	114.9	104.6	100.4	102.1	94.4	100.6	100.8	93.0	102.1	88.2	99.5	89.2	105.1	100.3	101.9	90.9
1984	120.8	102.7	102.4	106.7	96.4	96.8	101.0	89.7	102.7	85.0	95.9	91.3	99.6	99.0	100.5	95.7
1985	124.0	99.2	101.5	90.1	100.0	95.6	99.8	92.3	102.9	84.5	94.8	93.2	97.8	101.2	99.8	96.8
1986	107.3	94.6	124.2	80.8	103.5	104.7	104.3	88.3	107.5	85.3	101.5	96.9	107.6	106.1	97.9	96.9
1986																
October	104.3	94.6	129.5	77.5	104.7	107.8	106.9	82.3	108.7	85.6	106.0	97.7	113.0	111.3	97.4	96.5
November	105.4	95.0	124.5	79.0	105.1	107.5	107.0	82.9	108.8	85.5	106.1	96.9	110.8	111.1	96.7	96.9
December	104.8	95.3	124.3	81.5	105.4	108.1	107.7	83.1	109.4	85.7	105.2	99.0	111.1	111.5	95.2	96.9
1987																
January	101.6	95.3	125.8	80.0	104.6	111.2	107.8	83.9	111.1	86.7	105.7	97.1	111.9	112.3	95.3	96.9
February	100.7	96.4	125.4	80.3	105.6	111.3	107.8	84.2	111.5	86.9	106.1	97.7	111.7	113.9	95.8	97.6
March	100.2	97.9	126.0	82.4	105.3	110.4	106.7	88.0	110.4	85.6	105.5	98.3	111.3	113.3	96.4	96.7

Real effective exchange rates – developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1981	107.8	103.3	108.3	100.6	114.4	103.3	99.7	98.9	99.8	100.3	99.4	101.2	102.0	101.8	99.3	104.7
1982	77.0	112.9	97.3	105.9	82.9	104.6	110.2	101.6	111.7	101.9	105.6	106.7	100.8	96.6	108.6	96.0
1983	71.5	86.2	89.2	104.9	78.8	98.4	117.2	95.8	98.2	97.6	113.9	96.1	101.8	94.5	120.8	93.5
1984	80.1	85.7	90.1	99.6	91.8	105.8	86.0	100.2	96.8	96.5	119.7	107.9	102.4	97.1	119.5	91.1
1985	71.2	85.1	79.7	85.6	90.5	96.3	93.0	104.2	96.3	89.2	116.3	114.6	95.7	94.6	106.8	91.5
1986	61.0	74.5	68.7	67.7	65.1	93.8	87.2	94.0	72.3	73.9	95.3	90.2	80.3	87.2	101.0	71.1
1986																
April	61.8	73.8	68.5	70.1	66.7	90.8	89.8	95.5	81.3	76.6	94.6	89.9	80.9	88.7	100.7	71.9
May	60.9	72.8	68.6	68.1	65.7	90.7	89.8	95.2	80.2	75.1	92.9	88.4	79.1	88.4	101.6	71.4
June	61.3	73.1	70.3	67.8	66.7	92.0	90.2	96.2	80.4	75.4	93.1	87.4	79.3	89.5	101.9	70.9
July	61.6	72.7	69.6	66.8	65.0	92.0	89.8	91.7	78.1	70.7	92.0	87.8	78.6	89.0	101.0	69.8
August	60.9	72.2	67.9	65.9	62.3	91.6	89.7	90.3	76.6	69.8	91.5	85.8	78.5	89.1	99.5	67.8
September	58.8	72.4	67.7	65.9	60.7	93.6	90.0	92.3	61.9	70.4	91.1	86.5	78.0	84.9	100.5	67.4
October	58.8	71.7	67.8	64.9	60.5	96.7	90.8	92.3	55.4	70.6	93.1	88.1	77.6	84.6	100.9	67.7
November	59.4	72.9	68.2	64.6	60.7	100.9	92.3	94.8	56.3	71.9	95.0	89.1	78.7	85.4	102.0	65.8
December	58.7	76.0	68.0	64.5	59.7	105.1	60.3	93.6	56.0	72.0	93.3	90.1	78.5	85.8	102.0	64.6
1987																
January	56.4	76.0	65.0	64.9	60.4	90.7	52.8	89.5	54.7	70.4	91.5	88.4	77.2	85.2	92.7	63.5
February	55.8	71.3	65.0	64.8	60.0	93.7	53.3	89.0	54.7	70.9	91.6	86.1	74.9	84.8	92.0	63.6
March	48.1	67.1	65.8	64.9	58.8	97.1	53.3	89.2	53.7	72.3	90.6	86.1	74.7	86.1	92.4	64.4

International banking market size

at end of period, billions of dollars

	1981	*1982*	*1983*	*1984*	*1985*		*1986*		
					Sep	*Dec*	*Mar*	*Jun*	*Sep*
Gross claims									
Eurocurrencies, on residents and nonresidents	**1 929**	**2 146**	**2 253**	**2 359**	**2 622**	**2 833**	**2 947**	**3 040**	**3 347**
On nonbanks	557	634	665	694	761	822	854	875	914
On banks	1 372	1 512	1 588	1 665	1 861	2 011	2 093	2 165	2 433
In dollars	1 504	1 694	1 797	1 894	2 002	2 101	2 138	2 166	2 381
In other currencies	425	452	456	465	620	732	809	874	966
Domestic currencies, on nonresidents	**365**	**398**	**402**	**402**	**451**	**506**	**535**	**578**	**633**
On nonbanks	128	132	140	142	165	187	186	201	211
On banks	237	266	262	260	286	319	349	377	422
In dollars	188	211	221	215	205	215	203	210	219
In other currencies	177	187	181	187	246	291	332	368	414
Total	**2 294**	**2 544**	**2 655**	**2 761**	**3 073**	**3 339**	**3 482**	**3 618**	**3 980**
On nonbanks	685	766	805	836	926	1 009	1 040	1 076	1 125
On banks	1 609	1 778	1 850	1 925	2 147	2 330	2 442	2 542	2 855
In dollars	1 692	1 905	2 018	2 109	2 207	2 316	2 341	2 376	2 600
In other currencies	602	639	637	652	866	1 023	1 141	1 242	1 380
Gross liabilities									
Eurocurrencies, to residents and nonresidents	**1 954**	**2 168**	**2 278**	**2 386**	**2 641**	**2 846**	**2 964**	**3 059**	**3 379**
To nonbanks	372	432	479	497	546	585	610	632	662
To official monetary institutions	112	91	88	96	109	112	106	109	117
To other banks	1 470	1 645	1 711	1 793	1 986	2 149	2 248	2 318	2 600
In dollars	1 539	1 741	1 846	1 950	2 045	2 147	2 166	2 204	2 420
In other currencies	415	427	432	436	596	699	798	855	959
Domestic currencies, to nonresidents	**263**	**250**	**260**	**280**	**341**	**377**	**394**	**418**	**464**
To nonbanks	74	70	73	80	103	114	121	121	121
To banks	189	180	187	200	238	263	273	297	343
In dollars	126	116	135	146	159	169	166	171	191
In other currencies	137	134	125	134	182	208	228	247	273
Total	**2 217**	**2 418**	**2 538**	**2 666**	**2 982**	**3 223**	**3 358**	**3 477**	**3 843**
To nonbanks	446	502	552	577	649	699	731	753	783
To banks and official institutions	1 771	1 916	1 986	2 089	2 333	2 524	2 627	2 724	3 060
In dollars	1 665	1 857	1 981	2 096	2 204	2 316	2 332	2 375	2 611
In other currencies	552	561	557	570	778	907	1 026	1 102	1 232
Net market size	**1 155**	**1 285**	**1 382**	**1 430**	**1 572**	**1 676**	**1 735**	**1 800**	**1 910**

International bond issues and bank credits

millions of dollars

	1984	*1985*	*1986*	*1987*			*Jan-Mar*	
				Jan	*Feb*	*Mar*	*1987*	*1986*
By country of borrower								
Industrial countries	**177 077**	**226 711**	**270 231**	**21 575**	**21 836**	**20 096**	**63 507**	**59 925**
Australia	5 816	14 407	20 106	1 122	1 042	840	3 004	5 213
Austria	2 254	2 435	3 581	657	738	190	1 584	1 211
Belgium	1 847	3 269	4 952	697	108	210	1 015	1 788
Canada	13 124	17 184	21 633	957	882	963	2 802	4 093
Denmark	4 825	3 589	9 633	1 647	789	442	2 878	475
Finland	1 713	1 846	3 445	504	443	245	1 191	780
France	11 298	19 773	19 701	1 110	3 028	1 213	5 351	4 177
Germany	2 165	3 452	11 927	2 162	1 319	1 319	4 800	1 887
Greece	1 551	1 587	1 317	—	110	—	110	67
Ireland	1 377	1 881	4 179	—	113	—	113	664
Italy	6 933	11 033	12 962	686	480	583	1 750	2 321
Japan	17 526	21 269	35 508	2 206	3 176	4 558	9 940	5 791
Netherlands	1 973	2 299	3 579	672	452	358	1 483	1 185
New Zealand	3 208	2 707	8 078	789	438	259	1 486	1 332
Norway	1 324	3 905	6 644	782	668	1 459	2 909	600
Portugal	1 796	2 362	2 433	215	—	43	258	623
South Africa	1 422	825	—	—	—	—	—	—
Spain	4 931	3 913	7 015	55	342	—	396	490
Sweden	11 256	9 890	8 020	595	934	729	2 258	4 615
United Kingdom	8 899	25 424	24 295	3 778	1 208	2 422	7 407	5 504
United States	65 054	69 193	56 774	2 084	5 054	3 930	11 067	15 635
*Other**	6 785	5 447	4 448	859	511	334	1 704	1 483
Developing countries	**39 725**	**32 139**	**24 317**	**565**	**1 748**	**1 299**	**3 612**	**6 906**
Latin American countries	**17 464**	**8 115**	**3 192**	—	**551**	**54**	**605**	**512**
Argentina	4 212	3 700	17	—	—	—	—	17
Brazil	6 649	—	219	—	—	—	—	—
Chile	784	1 085	—	—	—	—	—	—
Colombia	589	1 052	89	—	—	—	—	—
Mexico	3 918	109	313	—	—	—	—	—
Venezuela	—	48	—	—	—	—	—	—
*Other***	1 312	2 121	2 554	—	551	54	606	495
Asian countries	**15 893**	**18 410**	**15 291**	**465**	**852**	**834**	**2 151**	**5 358**
India	945	818	1 721	25	252	262	539	686
Indonesia	1 924	451	1 358	16	175	—	191	956
Korea	6 201	5 898	3 134	25	—	145	170	1 133
Malaysia	2 605	2 219	1 328	20	65	—	84	54
Philippines	925	925	—	—	—	—	—	—
Thailand	1 221	1 497	1 401	—	—	100	100	610
Other	2 072	6 602	6 350	380	360	327	1 069	1 918
Middle Eastern and African countries	**6 368**	**5 613**	**5 834**	**100**	**345**	**412**	**857**	**1 036**
Algeria	821	1 450	1 344	—	—	75	75	407
Nigeria	985	—	—	—	—	—	—	—
Turkey	741	1 203	2 637	—	305	187	492	403
Other	3 821	2 960	1 853	100	40	150	290	226
Eastern European countries	**3 244**	**5 236**	**4 091**	**24**	**662**	**360**	**1 046**	**1 011**
Hungary	1 386	1 577	1 315	—	472	—	472	311
Soviet Union	1 051	1 489	1 821	24	190	79	293	550
*Other****	807	2 169	955	—	—	280	280	150
International organizations*****	**13 287**	**20 635**	**18 916**	**2 261**	**2 303**	**1 374**	**5 938**	**6 033**
By type of instrument and currency								
International bond issues	**107 411**	**167 758**	**226 393**	**17 998**	**20 772**	**19 723**	**58 493**	**54 024**
Eurobonds	79 458	136 731	187 952	14 707	17 090	17 507	49 304	42 920
U.S. dollar	63 593	97 782	118 220	5 365	6 017	6 219	17 601	25 988
German mark	4 604	9 491	16 870	2 955	3 244	1 306	7 505	4 356
British pound	3 997	5 766	10 510	1 069	1 540	2 760	5 369	2 983
Japanese yen	1 212	6 539	18 673	1 603	3 216	3 349	8 168	4 626
European composite units	3 032	7 038	6 965	1 909	684	784	3 377	1 469
Other	3 020	10 114	16 713	1 806	2 388	3 089	7 284	3 467
Foreign bonds	27 953	31 025	38 441	3 291	3 683	2 215	9 189	11 103
U.S. dollar	5 487	4 655	6 064	450	500	600	1 550	2 264
German mark	2 243	1 741	—	—	—	—	—	—
British pound	1 292	958	322	—	—	—	—	109
Swiss franc	12 626	14 954	23 401	2 338	2 207	1 447	5 992	5 758
Japanese yen	4 628	6 379	4 758	248	735	—	981	2 345
Other	1 677	2 339	3 898	257	241	168	666	627
International bank credits	**125 922**	**116 964**	**91 164**	**6 427**	**5 777**	**3 406**	**15 610**	**19 851**
Eurocurrency credits	112 605	110 317	82 755	5 842	5 170	2 781	13 793	18 304
Foreign credits	13 317	6 647	8 409	585	607	625	1 817	1 546
Total	**233 333**	**284 720**	**317 556**	**24 425**	**26 549**	**23 129**	**74 103**	**73 874**

*Includes multinational organizations. **Includes unallocated. ***Includes COMECON institutions. ****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1983	1984	1985	1986				1987		
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Eurodollar										
overnight	9.50	8.63	12.25	5.88	5.75	6.06	22.00	6.00	5.87	6.25
one month	9.69	8.38	8.00	6.00	5.81	6.25	6.50	6.06	6.31	6.44
three months	9.81	8.63	7.88	6.00	5.81	6.00	6.25	6.12	6.31	6.50
six months	10.06	9.13	7.88	6.00	5.81	5.94	6.12	6.12	6.31	6.56
twelve months	10.38	9.81	7.94	6.19	5.88	6.00	6.12	6.12	6.37	6.69
Euro-Canadian dollar										
one month	9.13	9.88	9.00	7.94	8.06	8.19	8.00	7.37	7.12	6.87
three months	9.50	10.81	9.00	8.19	8.31	8.31	8.12	7.37	7.25	6.87
six months	9.75	10.06	9.00	8.50	8.50	8.19	8.19	7.37	7.44	6.94
twelve months	10.00	10.44	9.00	8.75	8.69	8.56	8.31	7.50	7.62	7.06
Euro-French franc										
one month	12.13	10.69	12.50	7.38	7.38	7.56	10.12	8.81	8.31	8.19
three months	12.19	10.69	13.00	7.88	7.19	8.19	10.37	8.87	8.44	8.25
six months	12.31	11.00	13.13	7.75	7.88	8.37	9.75	8.81	8.44	8.31
twelve months	12.63	11.38	12.25	8.63	7.88	8.37	8.75	8.81	8.44	8.31
Euromark										
one month	5.25	5.50	4.75	4.50	4.44	4.69	5.12	4.00	3.94	3.87
three months	5.88	5.50	4.75	4.50	4.50	4.62	4.87	4.12	4.00	3.87
six months	6.13	5.56	4.75	4.56	4.56	4.69	4.81	4.12	4.00	3.87
twelve months	6.38	5.56	4.81	4.63	4.63	4.69	4.81	4.19	4.12	4.00
Euro-Dutch guilder										
one month	5.81	5.69	5.75	5.31	5.31	5.81	6.31	5.44	5.31	5.31
three months	6.00	5.75	5.75	5.25	5.31	5.69	6.00	5.31	5.31	5.31
six months	6.25	5.81	5.81	5.25	5.31	5.56	5.87	5.19	5.25	5.31
twelve months	6.38	5.94	5.88	5.25	5.31	5.56	5.81	5.19	5.25	5.31
Euro-Swiss franc										
one month	3.38	4.44	3.88	3.81	2.94	3.87	3.94	3.25	4.19	3.25
three months	3.75	4.56	4.00	4.06	3.75	3.87	3.94	3.19	3.94	3.69
six months	3.94	4.63	4.00	4.06	3.75	3.87	3.87	3.31	3.87	3.69
twelve months	3.94	4.69	4.06	4.06	3.81	3.87	3.87	3.62	3.94	3.75
Eurosterling										
one month	9.13	9.50	11.69	10.50	10.81	11.06	11.12	11.06	11.12	10.00
three months	9.31	9.88	11.81	10.19	11.13	11.37	11.12	11.00	10.69	9.81
six months	9.50	10.00	11.81	10.75	11.13	11.37	11.06	10.87	10.37	9.69
twelve months	9.81	10.19	11.69	10.81	11.06	11.37	11.06	10.75	10.31	9.62
Euroyen										
one month	6.25	6.19	7.13	4.94	4.25	4.62	4.56	4.37	4.56	3.94
three months	6.31	6.19	6.56	4.88	4.56	4.50	4.50	4.25	4.25	4.00
six months	6.38	6.13	6.50	4.88	4.56	4.50	4.37	4.12	4.12	4.00
twelve months	6.44	6.13	6.38	4.88	4.56	4.50	4.31	4.06	4.06	4.00
European currency unit										
one month	8.81	9.25	9.63	7.25	7.44	7.56	8.56	7.62	7.44	7.16
three months	9.19	9.38	9.63	7.25	7.56	7.62	8.44	7.56	7.44	7.16
six months	9.44	9.50	9.63	7.25	7.50	7.62	8.06	7.50	7.44	7.16
twelve months	9.63	9.63	9.63	7.25	7.50	7.56	7.31	7.50	7.37	7.19

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years at or near end of month

	1984	1985	1986					1987		
	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States companies										
Eurodollar	11.25	9.68	8.60	9.04	8.76	8.71	8.67	8.70	8.71	8.78
Euromark	6.95	6.73	6.55	6.73	6.66	6.63	6.62	6.64	6.60	6.56
Swiss franc	5.73	5.49	5.63	5.65	5.67	5.73	5.70	5.67	5.64	5.68
European governments										
Eurodollar	12.04	10.52	9.73	9.92	9.85	9.81	9.91	9.85	10.03	10.08
Euromark	7.39	7.03	6.64	6.63	6.78	6.88	6.77	6.64	6.70	6.50
Swiss franc	5.24	4.91	4.66	4.61	4.57	4.58	4.51	4.40	4.35	4.37
European currency unit	10.64	10.23	10.17	10.23	10.49	10.55	10.20	10.38	10.37	10.26

Central bank discount rates

at or near end of month

	1983	1984	1985	1986		1987			Current	
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr 30 1987	effective since
United States	8.50	8.00	7.50	5.50	5.50	5.50	5.50	5.50	5.50	Aug 21, 86
Canada	9.96	10.09	9.49	8.49	8.47	7.49	7.53	7.05	8.33	Apr 30, 87
Austria	3.75	4.50	4.00	4.00	4.00	3.50	3.50	3.50	3.50	Jan 23, 87
Belgium	10.00	11.00	9.75	8.00	8.00	8.50	8.50	8.00	8.00	Mar 12, 87
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.50	9.50	9.00	7.00	7.00	7.00	7.00	7.00	7.00	May 19, 86
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.00	4.50	4.00	3.50	3.50	3.00	3.00	3.00	3.00	Jan 23, 87
Ireland	12.25	14.00	10.25	13.25	13.25	13.25	13.25	13.25	12.75	Apr 16, 87
Italy	17.00	16.50	15.00	12.00	12.00	12.00	12.00	11.50	11.50	Mar 14, 87
Netherlands	5.00	5.00	5.00	4.50	4.50	4.50	4.50	4.50	4.50	Mar 7, 86
Norway	8.00	8.00	8.00	8.00	8.00	n.a.	n.a.	n.a.	n.a.	Jun 6, 83
Portugal	25.00	25.00	19.00	14.50	16.00	15.50	15.50	15.00	15.00	Mar 23, 87
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.50	9.50	10.50	7.50	7.50	7.50	7.50	7.50	7.50	Sep 19, 86
Switzerland	4.00	4.00	4.00	4.00	4.00	3.50	3.50	3.50	3.50	Jan 22, 87
United Kingdom	9.00	9.38	11.31	10.81	10.81	10.81	10.81	9.81	9.31	Apr 28, 87
Japan	5.00	5.00	5.00	3.00	3.00	3.00	2.50	2.50	2.50	Feb 23, 87
New Zealand	7.50	13.50	19.80	19.80	24.60	24.30	25.80	n.a.	25.80	Feb, 87
South Africa	18.50	21.75	13.50	10.50	10.00	10.00	10.00	10.00	10.00	Dec 10, 86
Argentina*	15.10	18.19	5.00	10.59	11.19	11.53	10.76	6.25	6.25	Mar 31, 87
Korea	5.00	5.00	5.00	7.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 86
Philippines	8.05	12.11	11.50	9.74	9.64	n.a.	n.a.	n.a.	9.64	Dec. 86
Singapore	7.00	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Jul, 85
Thailand	13.00	12.00	11.00	8.00	8.00	8.00	8.00	8.00	8.00	Sep 1, 86
Venezuela	11.00	11.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	Mar, 85

*Percent per month.

Day-to-day money rates

monthly averages

	1983	1984	1985	1986					1987		
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States	9.47	8.38	8.27	6.16	5.92	5.84	5.64	6.71	6.43	5.45	6.13
Canada	8.78	10.50	9.23	8.10	8.10	8.38	8.28	8.28	8.03	7.22	7.16
Austria	5.75	7.63	7.25	5.13	5.50	5.37	5.00	7.62	4.25	4.25	4.12
Belgium	7.39	9.12	6.60	6.37	5.76	6.26	5.81	5.06	7.75	6.90	6.22
Finland	16.70	15.07	11.96	24.17	13.86	11.93	11.80	11.97	11.99	11.76	11.44
France	12.27	10.95	9.01	7.05	7.08	7.31	7.28	7.28	8.60	8.38	7.80
Germany	5.61	5.62	4.64	4.49	4.39	4.41	4.45	5.00	4.21	3.84	3.87
Ireland	12.19	14.50	9.62	9.75	9.63	11.00	13.13	13.00	13.36	13.94	13.75
Italy	17.88	17.25	14.75	11.78	11.25	10.98	9.87	11.42	11.88	11.81	11.22
Netherlands	5.84	5.60	5.75	5.56	5.31	5.38	5.60	6.19	6.20	5.31	5.56
Norway	12.30	12.50	12.40	14.00	14.00	14.00	14.00	14.00	n.a.	n.a.	n.a.
Spain	16.98	12.18	9.92	12.34	11.58	11.68	11.69	11.76	12.21	12.47	14.43
Sweden	11.52	11.88	11.83	9.52	8.92	8.51	8.64	8.69	9.09	12.00	12.00
Switzerland	1.88	1.50	2.00	2.00	2.00	1.00	1.00	1.12	1.00	1.00	1.00
United Kingdom	7.78	6.31	9.72	8.70	8.06	11.19	10.62	9.19	11.08	10.68	10.30
Australia	4.55	10.98	18.37	16.42	17.22	17.13	16.21	15.40	15.73	16.22	16.05
Japan	6.44	6.41	8.02	4.55	4.63	4.41	3.77	4.18	4.00	4.05	3.86
South Africa	16.06	21.13	12.50	9.81	9.63	9.63	8.87	8.50	9.00	8.50	8.37
Argentina*	14.65	17.75	4.50	7.00	6.00	7.00	7.00	7.00	7.00	4.00	5.32
Brazil	184.69	272.02	352.23	35.60	45.58	44.24	55.55	63.05	270.00	n.a.	n.a.
Hong Kong	13.90	6.80	6.10	5.64	4.93	3.21	4.15	3.90	2.78	1.97	3.76
Korea	11.40	10.00	8.80	9.30	9.50	9.30	9.30	9.00	8.50	8.60	8.80
Philippines	31.18	15.22	15.03	8.99	11.72	8.42	7.98	n.a.	n.a.	n.a.	n.a.
Singapore	7.05	6.01	4.53	3.95	2.26	2.47	2.62	3.51	3.10	3.22	2.24
Taiwan	7.65	8.07	4.50	3.50	3.50	3.50	3.60	3.00	3.25	3.25	3.10

*Percent per month.

Treasury bill rates

bond equivalent yields, at or near end of month

	1983	1984	1985	1986					1987		
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States	9.28	7.99	7.25	5.23	5.30	5.25	5.44	5.73	5.66	5.49	5.76
Canada	9.71	9.84	9.24	8.33	8.35	8.30	8.24	8.22	7.24	7.28	6.80
Belgium	11.00	10.90	9.89	7.45	7.45	7.48	7.45	7.50	7.99	7.86	7.50
Ireland	12.01	15.10	11.15	10.65	10.61	13.79	14.22	13.60	13.91	13.67	13.51
Italy	16.29	14.19	12.70	10.39	10.34	10.13	10.00	10.00	9.94	9.74	9.66
Netherlands	5.63	5.88	5.69	4.75	5.63	5.36	5.81	6.37	5.94	5.88	5.44
Spain	14.46	12.00	9.25	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Sweden	11.75	11.83	12.49	9.25	8.66	8.44	9.05	9.20	10.25	10.80	10.31
United Kingdom	9.04	9.33	11.49	9.56	9.93	10.65	10.96	10.75	10.56	10.47	9.54
Australia	8.54	12.27	19.40	17.20	17.51	16.18	15.49	14.91	16.64	16.32	15.47
Japan	4.91	4.91	4.91	3.39	3.39	3.39	2.89	2.89	2.89	2.89	2.36
New Zealand	7.80	13.50	17.62	16.53	15.36	16.00	16.44	19.69	22.36	25.36	n.t.
South Africa	18.43	21.94	12.99	9.51	9.20	9.17	8.62	8.84	8.77	8.76	8.26
Brazil	179.15	273.03	379.77	36.00	42.00	45.00	33.00	149.00	276.40	n.a.	n.a.
Mexico	53.78	48.67	72.98	n.t.	n.t.	n.t.	103.77	104.03	104.64	104.83	n.a.
Philippines	15.99	47.14	16.45	13.00	12.75	12.58	11.32	n.a.	n.a.	n.a.	n.a.
Singapore	2.59	2.91	2.94	2.15	2.01	1.99	1.93	2.10	2.19	1.67	1.93

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1983	1984	1985	1986					1987		
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States	9.80	8.34	8.01	5.65	5.96	5.99	5.96	6.04	5.97	6.24	6.70
Canada	9.87	10.10	9.45	8.35	8.50	8.50	8.35	8.20	7.55	7.45	7.05
Belgium	11.15	10.85	9.89	7.40	7.35	7.50	7.50	7.60	7.86	7.81	7.50
France	12.19	10.69	9.12	7.13	7.43	7.50	7.60	8.37	8.50	8.25	7.87
Germany	6.30	5.75	4.80	4.30	4.40	4.60	4.65	4.85	3.90	3.86	3.85
Ireland	12.19	15.13	12.00	10.63	11.25	14.00	14.44	14.06	14.12	14.25	13.37
Italy	17.88	16.88	15.13	11.00	10.62	11.00	11.12	11.37	11.37	11.12	10.12
Netherlands	6.00	5.75	5.75	5.25	5.44	5.44	5.81	6.19	5.44	5.50	5.55
Portugal	24.11	24.57	20.71	15.93	15.96	15.96	15.93	16.07	14.95	14.94	14.96
Spain	19.00	12.21	10.51	12.18	11.53	11.41	11.52	11.79	12.35	12.60	14.60
Switzerland	3.88	5.00	4.75	4.25	4.25	4.19	4.00	4.50	3.75	4.00	3.87
United Kingdom	9.31	9.88	12.75	9.63	10.38	11.12	11.44	11.25	11.12	10.19	10.06
Australia	9.05	12.90	19.75	17.70	17.85	16.45	15.90	15.10	16.40	16.60	16.30
Japan	6.45	6.33	7.03	4.53	4.75	4.54	4.43	4.34	4.22	3.96	3.98
New Zealand	11.75	15.00	20.00	16.30	16.50	16.50	16.50	24.25	23.60	25.15	25.60
South Africa	19.12	22.78	13.35	9.35	9.55	9.65	8.90	8.55	9.20	9.05	8.40
Chile	20.68	20.68	22.42	11.35	12.68	20.98	20.98	19.56	25.34	25.34	23.87
Hong Kong	14.88	8.25	6.50	5.00	5.25	4.38	4.44	4.62	3.44	4.37	4.87
Indonesia	19.50	19.00	15.00	14.00	14.50	14.25	14.50	19.50	16.50	16.00	17.00
Korea	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Malaysia	9.80	10.30	8.20	11.75	12.00	9.50	6.70	6.00	5.30	3.30	2.60
Philippines	15.61	33.21	14.61	11.76	9.89	11.19	10.31	8.31	8.34	n.a.	n.a.
Singapore	8.44	7.00	5.88	3.94	3.25	2.94	3.19	3.94	3.34	3.31	3.26
Taiwan	8.07	7.85	4.10	2.81	2.65	2.65	2.86	n.a.	n.a.	n.a.	n.a.
Thailand	16.00	12.00	15.50	8.00	7.50	7.50	7.75	7.75	7.75	n.a.	n.a.

Commercial bank deposit rates

at or near end of month

	1983	1984	1985	1986					1987		
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States	9.70	8.35	7.75	5.47	5.80	5.75	5.78	6.30	6.00	6.13	6.30
Canada	9.82	10.05	9.40	8.30	8.45	8.45	8.30	8.15	7.50	7.40	7.00
Austria	6.50	7.50	6.50	5.13	5.75	5.62	5.37	5.50	5.12	4.75	4.50
Belgium	11.25	10.63	9.63	7.19	7.25	7.31	7.37	7.44	7.75	7.69	7.37
Denmark	6.00	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Finland	5.25	5.25	4.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
France	7.66	7.04	6.12	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Germany	5.90	5.25	4.40	4.45	4.40	4.50	4.60	4.80	4.70	3.90	3.95
Ireland	11.75	14.63	11.87	10.00	10.50	12.00	14.12	13.75	14.00	14.00	13.25
Italy	13.25	11.64	11.85	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Netherlands	6.13	5.69	5.81	5.19	5.31	5.31	5.69	6.06	5.31	5.37	5.37
Norway	12.75	12.75	12.00	13.00	13.00	13.00	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	21.50	28.00	20.00	15.50	15.50	15.00	15.00	15.00	15.00	15.00	14.50
Spain	12.62	11.64	9.64	8.89	8.78	8.78	8.65	8.67	8.54	8.57	n.a.
Sweden	11.70	11.45	12.18	9.70	9.27	8.63	9.85	9.93	10.30	11.00	10.75
Switzerland	3.50	4.50	4.50	4.00	4.00	3.94	3.75	4.25	3.50	3.75	3.62
United Kingdom	9.31	9.88	11.75	9.63	10.37	11.13	11.25	11.19	11.00	10.59	9.84
Australia	10.40	12.75	18.80	16.68	17.82	16.71	15.73	15.56	15.73	16.62	16.15
Japan	6.40	6.38	7.05	4.80	4.95	4.63	4.65	4.55	4.16	4.17	4.20
New Zealand	11.75	15.25	19.98	16.57	15.50	16.60	19.00	23.50	22.72	23.70	23.30
South Africa	20.13	22.88	13.20	9.75	9.50	9.75	9.25	8.65	9.50	9.25	8.75
Argentina*	14.50	31.23	5.40	6.18	6.94	7.65	7.87	8.41	8.81	4.43	4.86
Brazil	23.00	27.00	18.00	42.00	44.00	49.00	85.00	220.00	400.00	n.a.	n.a.
Chile	20.57	20.68	23.60	13.62	16.49	20.70	20.27	20.98	26.97	27.42	24.31
Hong Kong	14.88	8.25	6.50	5.00	5.25	4.38	4.44	4.62	3.44	4.37	4.77
Korea	7.60	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Malaysia	7.75	9.58	7.00	7.00	7.00	7.00	6.42	6.33	4.83	4.66	2.33
Mexico	57.15	47.45	72.90	87.50	94.30	94.30	94.30	94.30	94.30	94.30	n.a.
Philippines	14.96	31.01	12.34	10.88	9.77	9.35	9.55	n.a.	n.a.	n.a.	n.a.
Singapore	7.44	6.13	5.26	3.88	3.19	2.88	3.13	3.63	3.19	3.32	3.32
Taiwan	7.00	6.50	5.25	4.25	4.50	4.00	4.00	4.00	4.00	4.00	4.00
Thailand	10.00	13.00	10.50	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75
Venezuela	12.00	12.50	8.00	9.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00

*Percent per month.

Domestic government bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986					1987		
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States	12.00	11.61	9.49	7.51	7.95	7.81	7.69	7.79	7.17	7.62	7.90
Canada	12.02	11.66	10.04	9.16	9.44	9.53	9.26	9.23	8.94	9.10	8.98
Austria	8.02	8.04	7.81	7.11	7.06	7.25	7.36	7.33	7.25	7.05	6.93
Belgium	11.69	11.56	9.60	7.24	7.36	7.31	7.41	7.70	7.57	7.57	7.64
Denmark	12.96	14.60	9.67	11.24	11.11	11.16	11.80	11.70	11.33	12.63	12.23
Finland	11.16	10.73	10.58	8.15	7.75	7.90	7.74	7.80	7.78	7.82	7.89
France	13.96	12.70	11.33	8.05	8.51	8.97	9.49	9.69	9.54	9.84	9.42
Germany	8.38	7.17	6.57	5.95	6.26	6.44	6.33	6.25	6.20	6.26	6.12
Ireland	14.25	14.90	11.84	11.33	12.46	13.65	13.49	13.97	12.97	11.16	12.41
Italy	17.69	14.52	13.66	10.79	10.42	10.25	10.33	10.05	9.78	9.84	10.04
Netherlands	8.58	7.72	6.96	6.03	6.04	6.22	6.30	6.40	6.21	6.15	6.22
Norway	12.50	12.00	13.10	13.40	13.40	13.40	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	22.11	22.23	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	17.25	13.93	12.30	11.52	11.10	10.15	10.29	10.38	10.74	10.59	10.95
Sweden	12.30	12.04	12.11	9.63	9.49	9.31	10.35	10.68	11.70	11.23	10.70
Switzerland	4.53	4.60	4.42	4.20	4.17	4.09	4.07	4.05	3.93	4.01	4.11
United Kingdom	9.94	10.25	10.35	9.31	10.31	10.40	10.58	10.17	10.64	9.51	9.15
Australia	13.65	13.50	14.85	14.10	13.85	13.60	13.60	13.40	13.60	14.00	13.41
Japan	6.94	6.30	5.82	4.73	5.00	4.85	4.73	4.61	4.25	3.96	3.72
New Zealand	10.50	16.90	17.00	15.90	15.35	15.18	16.00	15.85	16.20	16.80	16.20
South Africa	13.64	16.55	18.09	14.03	15.24	15.83	14.13	15.06	15.33	15.30	14.66
Philippines	14.47	18.54	n.t.	n.t.	n.t.	n.t.	n.t.	n.a.	n.a.	n.a.	n.a.
Venezuela	13.50	14.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

Commercial bank lending rates to prime borrowers

at or near end of month

	1983	1984	1985	1986					1987		
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States	11.00	10.75	9.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Canada	11.00	11.25	10.00	9.75	9.75	9.75	9.75	9.75	9.25	9.25	8.75
Austria	9.25	9.25	9.00	9.00	9.00	9.00	9.00	9.00	9.00	8.75	8.75
Belgium	13.75	14.00	11.50	9.75	9.75	9.75	9.75	9.75	10.75	10.25	9.75
Denmark	10.00	10.50	8.50	8.00	8.00	8.00	8.00	8.00	9.50	10.00	10.00
Finland	10.18	10.68	10.37	8.79	8.77	8.75	8.74	8.81	8.61	8.60	n.a.
France	12.25	12.00	10.60	9.60	9.45	9.45	9.45	9.45	9.45	9.45	9.45
Germany	7.75	7.75	7.25	6.75	6.75	6.75	6.75	6.75	6.75	6.25	6.25
Ireland	13.75	15.75	12.50	12.25	12.25	15.75	15.75	15.75	15.75	15.75	15.75
Italy	18.75	18.00	15.88	13.50	13.00	13.00	13.00	13.00	13.00	13.00	12.50
Netherlands	7.00	6.25	6.25	5.88	5.88	5.88	6.12	7.12	6.12	5.75	5.87
Norway	13.50	13.00	12.40	15.25	15.75	15.88	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	30.00	29.00	22.50	18.00	18.00	17.50	17.50	17.50	17.50	17.50	19.50
Spain	17.31	15.84	14.75	14.38	14.29	14.25	14.23	14.22	14.24	14.24	14.57
Sweden	13.50	14.50	15.05	12.75	11.50	11.50	11.50	11.50	11.50	11.50	11.50
Switzerland	6.00	6.00	6.00	5.75	5.75	5.75	5.75	5.75	5.25	5.25	5.25
United Kingdom	9.00	9.50	11.50	10.00	10.00	11.00	11.00	11.00	11.00	11.00	10.00
Australia	12.75	14.00	21.00	18.50	19.00	19.00	18.50	18.25	18.00	18.25	18.25
Japan	5.89	5.70	5.71	4.52	4.48	4.48	4.45	4.35	4.28	n.a.	n.a.
New Zealand	11.00	14.00	21.00	16.50	17.00	18.50	18.50	18.50	24.00	25.00	27.00
South Africa	20.00	24.00	18.50	14.00	13.50	13.50	13.50	12.00	12.50	12.50	12.50
Argentina*	15.50	32.05	7.30	7.70	8.62	8.70	8.85	11.30	9.85	5.45	5.71
Brazil	24.00	31.00	19.00	44.00	46.00	51.00	88.00	250.00	440.00	n.a.	n.a.
Chile	30.90	60.82	33.34	26.38	23.51	27.20	29.13	29.13	33.57	36.07	34.48
Hong Kong	13.50	11.00	7.00	6.50	6.50	6.50	6.50	6.50	5.00	5.00	6.00
Indonesia	19.75	23.50	18.75	18.75	18.75	18.25	18.25	19.75	20.50	19.50	19.50
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Malaysia	11.00	12.00	10.50	10.50	10.50	10.50	10.50	10.00	9.00	9.00	9.00
Mexico	56.44	47.54	65.66	84.40	87.72	91.48	94.19	95.33	95.89	96.20	n.a.
Philippines	18.00	44.00	15.00	13.50	13.00	12.00	11.00	10.00	n.a.	n.a.	n.a.
Singapore	8.98	9.40	7.20	6.83	6.45	6.28	6.10	6.10	6.10	6.10	6.10
Taiwan	10.25	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Thailand	16.00	16.50	15.50	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
Venezuela	16.00	16.00	13.00	14.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00

*Percent per month.

Domestic corporate bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986					1987		
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States	12.63	12.25	10.15	8.63	9.00	9.00	8.88	8.68	8.50	8.55	8.65
Canada	12.89	12.42	10.74	10.00	10.32	10.39	10.21	10.18	9.67	9.90	9.79
France	14.35	12.94	11.76	8.37	8.92	9.36	9.77	10.18	9.92	10.06	9.79
Germany	8.30	7.20	6.90	6.40	6.30	6.40	6.60	6.50	6.50	6.40	6.60
Netherlands	8.51	7.51	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Norway	13.25	12.75	14.00	15.00	15.50	15.00	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	20.07	18.32	14.92	13.68	13.36	13.24	13.61	13.40	13.72	14.13	14.82
Sweden	12.21	12.33	13.25	10.99	10.82	10.77	11.72	11.99	13.00	12.63	12.15
Switzerland	4.92	5.09	4.93	4.77	4.77	4.73	4.71	4.72	4.62	4.56	4.58
United Kingdom	11.57	11.64	11.47	10.32	10.34	11.58	11.43	11.71	11.30	10.58	10.21
Japan	7.49	7.11	6.79	6.11	6.10	6.18	6.05	5.93	5.46	5.35	n.a.
Korea	14.20	15.00	13.60	12.80	12.80	12.80	12.70	12.80	12.60	12.70	12.80
Venezuela	18.00	18.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00

Key to data in tables

I. International markets

Data on the *international banking market size* are based on resident and nonresident Eurocurrency (i.e., foreign currency) assets and liabilities and on nonresident domestic currency assets and liabilities of banks in nearly all European countres, the Bahamas, Bahrain, Canada, Cayman Islands, Hong Kong, Japan, Netherlands Antilles, Panama, Singapore, and the United States. All assets and liabilities of international banking facilities (IBFs) of banks in the United States are treated as Eurocurrencies.

An *international bond issue* may be either a Eurobond issue or a foreign bond issue. A *Eurobond issue* is one placed principally in countries other than that of the currency in which the bond is denominated, usually through an international syndicate. A *foreign bond issue* is one issued by a nonresident borrower on the market of a single country and denominated in that country's currency. Data on new international bond issue volume include all publicly announced issues of straight bonds, convertibles, bonds with warrants, floating rate notes, and certificates of deposit with an original maturity of three years or more (one year or more beginning in 1985), whether publicly or privately placed.

An *international bank credit* may be either a Eurocurrency credit or a foreign credit. A *Eurocurrency credit* is one denominated in a currency that is foreign to the country of the bank office extending the credit. A *foreign credit* is one extended to a nonresident borrower and denominated in the domestic currency of the country in which the bank office extending the credit is located. Data on new international bank credit volume include all publicly announced bank credits with an original maturity of one year or more (term loans, revolving lines of credit, and facilities to back up the issuance of other financial instruments such as commercial paper, short-term notes, certificates of deposit and banker's acceptances).

Data on international bond issues and bank credits through 1984 were compiled by Morgan Guaranty Trust Company. Beginning in January 1985 these data are based on figures published in the OECD's *Financial Statistics Monthly*.

II. Domestic markets

Central bank discount rates

Rates shown are the official discount rates with the exception of:

Ireland — Short Term Facility rate.

South Africa — discount rate for 90-day banker's acceptances.

United Kingdom — rate of discount for outright purchases of 15- to 33-day bank bills.

Day-to-day money rates

Argentina—7-day interbank money regulated by the central bank.

Austria — day-to-day interbank rate.

Australia — effective interest rate in the official short-term money market.

Belgium — day-to-day loan rate in the call money market.

Brazil — interbank overnight money.

Canada—chartered banks' day-to-day loans.

Finland — Bank of Finland call money.

France — interbank call money against private paper.

Germany — interbank call money.

Hong Kong — interbank 24-hour call rate.

Ireland — interbank call money.

Italy — interbank 48-hour call money.

Japan—Tokyo interbank call money, unconditional lenders rate.

Korea — overnight interbank call money.

Netherlands — open-market call money.

Norway — day-to-day interbank rate.

Philippines — interbank call loan rate.

Singapore — interbank overnight money.

South Africa — discount houses basic call rate.

Spain — day-to-day interbank rate.

Sweden — interbank call money.

Switzerland — call money.

Taiwan — private interbank overnight loan rate.

United Kingdom — call money.

United States — federal funds rate.

Treasury bill rates

Australia — 13-week Treasury notes at tender.

Belgium — new issue of 3-month Treasury certificates.

Brazil — 3-month Treasury bills.

Canada — 3-month Treasury bills at tender.

Ireland — 3-month central bank exchequer bills at tender.

Italy — 6-month Treasury bills.

Japan — 60- to 62-day noninterest-bearing discount government bills.

Mexico — 3-month Federal Treasury bills.

Netherlands — 3-month Treasury bills.

New Zealand — tap issue rate for 3-month Treasury bills until December 1984. As of January 1985, 3-month Treasury bills at tender.

Philippines — simple average of 91-day Treasury bills at tender until June 1984. Beginning July 1984 rates refer to the weighted average interest rate on 91- to 183-day Treasury bills sold to banks under negotiated basis.

Singapore — 91-day Treasury bills at tender.

South Africa — 3-month Treasury bills at tender.

Spain — 6-month Treasury bills at tender until March 1984. As of April 1984, 3-month Treasury bill repos reported by the Bank of Spain (average of quotations during the month).

Sweden — new issues of 3-month Treasury bills until June 1982. New series as of July 1982, 6-month Treasury discount notes, market rate.

United Kingdom — 91-day Treasury bills at tender.

United States — 3-month Treasury bills.

Representative money-market rates

Australia — buying rate for 90-day bank accepted commercial bills.

Belgium — 4-month Fonds des Rentes certificates.

Canada — 3-month prime finance company paper.

Chile — central bank 60-day fixed rate promissory notes (PDBC) at tender.

France — 3-month interbank money against private paper.

Germany — 3-month interbank deposits.

Hong Kong — 3-month interbank deposits.

Indonesia — 1-month interbank deposits.

Ireland — 3-month interbank deposits.

Italy — 3-month interbank deposits.

Japan — 3-month "gensaki" rate.

Korea — 3-month financial bill.

Malaysia — 3-month interbank deposits.

Netherlands — 3-month interbank deposits.

New Zealand — 90-day commercial bills.

Philippines—weighted average interest rate for 90-day promissory rates.

Portugal — average of 30- to 90-day interbank deposits.

Singapore — 3-month banker's acceptances.

South Africa—90-day banker's acceptances.

Spain — 3-month interbank rate reported by the Bank of Spain (average of quotations during the month).

Switzerland — 3-month interbank deposits.

Taiwan — 90-day banker's acceptances.

Thailand — interbank call money.

United Kingdom — 3-month interbank deposits.

United States — 3-month prime industrial paper.

Commercial bank deposit rates

Argentina — nominal 30-day time deposits. Average of bank rates published by the central bank until August 1984. New series as of September 1984, 30-day acceptances maximum interest rate.

Austria — 3-month time deposits.

Australia — 3-month certificates of deposit.

Belgium — special maximum rate for 3-month time deposits in large amounts.

Brazil — 6-month certificates of deposit with prefixed yields until July 1982. New series as of August 1982, 6-month certificates of deposit reported as a spread above monetary correction which is set every month in relationship to inflation.

Canada — 3-month time deposits.

Chile — 30-day time deposits.

Denmark — time deposits of 3-months' notice.

Finland — time deposits of six-month notice.

France — 3-month time deposits of FF. 1,000,000.

Germany — 3-month time deposits in large amounts.

Hong Kong — negotiable 3-month time deposits of more than HK$500,000.

Ireland — 3-month deposits.

Italy — 3-month time deposits of Lit. 100 million or more.

Japan — 90-day negotiable certificates of deposit issued by the Tokyo office of Morgan Guaranty Trust Company.

Korea — 3-month time deposits.

Malaysia — 3-month time deposits.

Mexico — 3-month certificates of deposit until September 1983. New series as of October 1983, 3-month promissory notes.

Netherlands — 3-month time deposits in large amounts.

New Zealand — 6-month transferable certificates of deposit.

Norway — 3-month special term deposits.

Philippines — weighted average interest rates on 60- to 90-day time deposits of sample commercial banks.

Portugal — 90- to 180-day time deposits until May 1984. New series as of June 1984, 180-day to one-year time deposits.

Key to data in tables — continued

Singapore — 3-month certificates of deposit.

South Africa — 3-month negotiable certificates of deposit.

Spain — deposits over 6 months and less than 1 year for Pts. 1 million or more reported by the Bank of Spain.

Sweden — 3-month certificates of deposit.

Switzerland — 3-month time deposits.

Taiwan — maximum rate for 3-month time deposits.

Thailand — 3-month time deposits.

United Kingdom — 3-month time deposits.

United States — 3-month negotiable certificates of deposit issued by Morgan Guaranty Trust Company.

Venezuela — 6-month negotiable certificates of deposit for domestic depositors only.

Domestic government bond yields

Austria — Austrian National Bank average yield on all outstanding government bonds.

Australia — secondary market yield for 10-year Treasury bonds.

Belgium — Belgium National Bank secondary market average yield on central government bonds of more than 5 years' maturity quoted on Brussels Stock Exchange.

Canada — Bank of Canada average yield on all direct government bonds due or callable in 10 years or more.

Denmark — 12% serial bonds maturing 2001 until April 1983. New series as of May 1983, 10% serial bonds maturing 2004.

Finland — rate of interest at issue on central government bonds intended for public subscription, weighted by sales of bonds in the latter half of each month.

France — INSEE secondary market weighted average yield of public sector bonds with a remaining maturity of 10 years or more.

Germany — Frankfurter Allgemeine Zeitung 10-year public authority bond average.

Ireland — 15-year government bonds.

Italy — average yield on fixed-interest government bonds, not including irredeemable bonds, weighted by the amounts in circulation, for maturities of 9 years or more.

Japan — secondary market average yield on Central government bonds with a maturity of 5 years or more.

Netherlands — Central Bureau of Statistics (CBS) average yield on three latest government bonds.

New Zealand — average yield on government bonds maturing after 5 years.

Norway — 5% government bond of 1998 until December 1982. New series as of January 1983, average yield of long-term government bonds.

Philippines — weighted average interest rate of outright sales on secondary transactions for central bank certificates of indebtedness.

Portugal — yield of 4% Centenary Loan of 1940.

South Africa — 25-year government bonds until August 1983; 20-year Republic of South Africa bonds until April 1984; new series as of May 1984, secondary market yield for the 13% due 2005 Republic of South Africa bond.

Spain — Bank of Spain secondary market weighted average yield of several central government issues with more than 2 years' maturity (average of quotations during the month).

Sweden — 15-year government bonds until October 1983. New series as of November 1983, 5-year government bond yield index, market rate.

Switzerland — Swiss Confederation bond average.

United Kingdom — F.T. (*Financial Times*) Actuaries 25-year government stock.

United States — Morgan Guaranty 20-year U.S. Government Bond Index.

Venezuela — Banco Central average yield on public-sector bond issues.

Commercial bank lending rates to prime borrowers

Argentina — average rate on 30-day loans.

Austria — overdraft rate for prime borrowers, including commission.

Australia — overdraft rate. Maximum indicator rate applying to loans of A$100,000 or more for major trading banks.

Belgium — prime overdraft rate.

Brazil — prefixed rate applied to working capital loans until July 1982; monetary-corrected free rate applied to working capital loans from August 1982 to July 1983. New series as of August 1983, maximum legal rate reported as a spread above monetary correction which is set every month in relationship to inflation. Charges for fees and commissions are often added.

Canada — prime rate.

Chile — average prime rate of six major commercial banks.

Denmark — approximate rate for loans and advances to prime borrowers.

Finland — average rates on total commercial bank lending.

France — base lending rate, excluding a commission of .05% per month on highest debit balance during the month. A spread above base rate is often added.

Germany — approximate effective overdraft rate for prime borrowers.

Hong Kong — prime lending rate set by the Hong Kong Association of Banks.

Indonesia — prime rate for domestic affiliates of foreign companies.

Ireland — AA corporate borrowing rate.

Italy — unsecured overdraft rate for prime borrowers.

Japan — average contracted interest rate for short-term loans of city banks. In addition, compensating balances may be required.

Korea — prime rate.

Malaysia — Bank of Commerce Berhad base lending rate.

Mexico — base rate or average cost of money for banks determined monthly by the Banco de Mexico S.A.

Netherlands — overdraft rate for prime borrowers, including commission.

New Zealand — overdraft rate for prime borrowers.

Norway — overdraft rate, including a commission of .25% per quarter on the total line of credit until January 1983. New series as of February 1983, special rate of first class, large borrowers.

Philippines — prescribed administrative ceiling for unsecured loans with maturities of 365 days and below, including charges until December 1982. New series as of January 1983, modal rate to prime borrowers.

Portugal — maximum rate for 90- to 180-day loans.

Singapore — most common overdraft rate, major banks.

South Africa — unsecured overdraft rate for prime borrowers.

Spain — private banks' average interest rate for 1-year loans reported by the Bank of Spain.

Sweden — overdraft rate for prime industrial borrowers, commission not included.

Switzerland — unsecured overdraft rate for prime borrowers, excluding commission of .25% per quarter on average or highest outstanding debit balance in quarter.

Taiwan — maximum rate for 3- to 12-month secured loans. Rate is an indication only and may vary from actual bank lending rate which is subject to volatile interbank rates.

Thailand — prime rate.

United Kingdom — clearing bank base lending rate. A spread above base rate is often added.

United States — prime rate of Morgan Guaranty Trust Company.

Venezuela — representative rate for domestic prime borrowers only.

Domestic corporate bond yields

Canada — McLeod, Young, Weir Co. Ltd., weighted long-term bond yield index for AA corporates.

France — INSEE secondary market weighted average yield of private company bonds with a remaining maturity of 10 years or more.

Germany — Bundesbank secondary market weighted average yield of industrial bonds with a remaining maturity of more than 3 years.

Japan — secondary market yield for NTT bond maturing March 1987.

Korea — average of yields on corporate bonds guaranteed by local banks, with an original maturity of 3- 2- 5-years.

Netherlands — CBS average yield on three 6%-6.5% corporate bonds until December 1981. As of January 1982, CBS secondary market weighted average yield on all commercial bank issues with a quotation between 92% and 103%.

Norway — 5.75% Dalen Portland-Cement bond of 1969-1984 until December 1982. New series as of January 1983 average yield of long-term industrial bonds.

Spain — Bank of Spain seconary market weighted average yield of several corporate issues with more than 3 years' maturity (average of quotations during the month).

Sweden — Central Satistical Bureau average yield on industrial bonds.

Switzerland — average yield on outstanding bonds of four leading Swiss companies. Mixture changed as of January 1982.

United Kingdom — *Financial Times* secondary market average yield of industrial and financial company debentures and loan stocks with an average of 25 years to maturity.

United States — Salomon Brothers index of new issues yields for Aa industrial bonds with five-year call protection.

Venezuela — average of yields on 15-year bond issues of Electricidad de Caracas.

World Financial Markets

Published by
Morgan Guaranty Trust Company of New York
International Economics Department
23 Wall Street, New York, NY 10015

Member, Federal Deposit Insurance Corporation Printed in U.S.A.

6/19/87 B6200-2

World Financial Markets

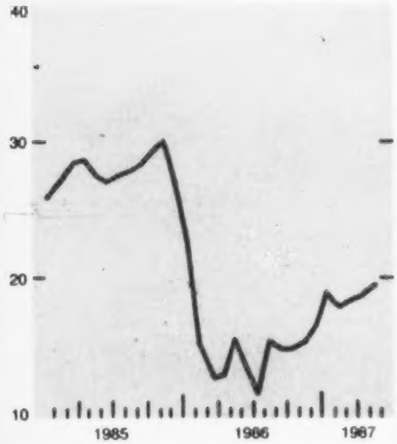
Morgan Guaranty Trust Company of New York

May 1987

The oil outlook, 1
  The economic setting, 1
  Oil demand, 3
  Non-OPEC oil supply, 6
  OPEC oil supply and the price outlook, 7
  U.S. oil concerns, 9
Statistical appendix, 11

Chart 1

U.S. spot oil price
*$ per barrel**



*West Texas Intermediate

The oil outlook

Oil prices have staged a major recovery from their lows of July 1986, when some crudes traded below $10 per barrel. Spurred most recently by the inflationary fears gripping U.S. money and commodity markets, the spot-market price of the main U.S. crude, West Texas Intermediate (WTI), approached $20 in mid-May 1987 (see Chart 1). While movements in spot and futures quotes for this premium U.S. domestic crude are important indicators of trend, their levels are not always representative of international oil prices. More representative are those of OPEC, which supplies over 60% of free-world oil imports. OPEC has dropped its netback pricing of 1986 and has reinstituted fixed official prices, based on a benchmark basket of seven crudes averaging $18. The weighted average of *all* OPEC fixed prices is around $17.

The recovery of prices began promptly on the heels of last August's announcement of OPEC's intent to resume production restraint. OPEC members cut their output 20% in the final months of 1986 and set a further 7% cut for the first half of 1987, with a ceiling of 15.8 million bpd. During the first quarter, their total output held fairly close to the ceiling, forcing some reduction in excess inventories. More members than before respected their output quotas. Crucially, Saudi Arabia cut production substantially below its quota during February and March. This successfully quelled market doubts about OPEC's resolve, which had softened spot prices and endangered official prices. Amid the recent exuberance of spot prices, there were scattered signs that OPEC production discipline had begun to fray. These were not so widespread as to place the OPEC accord on prices and quotas under serious strain, but may have helped take the bloom off the spot markets.

Looking ahead, several related questions stand out. What have been the economic effects of the 1986 drop in oil prices? What response has it engendered among consumers and producers? Has the outlook for oil demand and supply changed? Is the oil market turbulence of early 1986 likely to return? And finally, how should the United States tackle its rising reliance on imported oil?

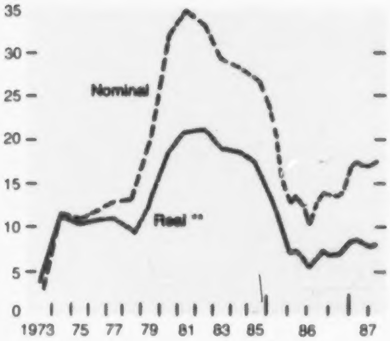
The economic setting

Oil prices peaked at nearly $36 per barrel in early 1981 (see Chart 2).

Chart 2

OPEC oil price

average price, $ per barrel*



*Average of all OPEC export oil prices including, but not limited to, benchmark crudes

**In 1974 prices; nominal oil prices deflated by the average wholesale prices of manufactures in major industrial countries in dollar terms, weighted by these countries' share of exports to OPEC in 1980

Table 1

Current account balances

billions of dollars

	1985	1986	1987
Industrial countries	—51	—14	—19
United States	—118	—141	—135
Excluding the United States	67	127	116
Japan	49	86	85
Europe	24	53	41
Germany	15	35	28
Others	—6	—12	—10
OPEC	6	—33	—20
*Non-OPEC LDCs**	—27	—9	—12
Asia	—11	6	5
Latin America	—8	—14	—15
Others	—8	—1	—2
*Discrepancy**	—72	—56	—50

*For 1985 and 1986 derived from IMF estimates; discrepancy in all years includes Comecon.

Over the next several years, until end-1985, they edged lower, but only by a cumulative $9. At an average of just under $27, 1985 prices were less than 15% below the 1981 level in real terms. But in 1986, dollar oil prices plunged more than 45%, averaging under $15. At the same time, thanks largely to the dollar's depreciation, OPEC members saw their import prices surge — by an average of over 20% in dollar terms — so that for them the 1986 oil-price decline amounted to over 50% in real terms.

Inevitably, there were major national income and balance of payments consequences. OPEC members suffered terms of trade losses averaging 13% of GNP in 1986. Their aggregate current account balance deteriorated severely, lapsing into a deficit of over $30 billion from a $6 billion surplus in 1985 (see Tables 1 and 2).[*] The counterpart to OPEC's experience appeared primarily as gains for the industrial countries. Their terms of trade improved some 0.8% of GNP. And despite the continued widening of the U.S. current account deficit, that of the industrial countries taken as a whole shrank from $51 billion in 1985 to $14 billion in 1986 — about equal to the deterioration in OPEC's position.

These balance of payments swings in dollar terms would have been substantially greater in the absence of significant adjustment in trade volumes. OPEC members slashed imports more than 25% in volume terms (see Chart 3), compounding cutbacks that already had exceeded 35% between 1982 and 1985. At the same time, the volume of their oil exports grew by 15% in 1986 — the first increase in six years. By these means OPEC members improved their *real* net exports by over 7% of GNP. For the industrial countries, net oil import volume grew 13%, of which the United States absorbed 70%. Reflecting the straitened income and financial position of OPEC members, the volume of industrial-country exports to them fell on the order of 25%, mostly to the detriment of Europe and Japan (see Table 3). Thus, the industrial countries lost the equivalent of 0.5% of GNP through higher net oil import volume and lower export volume to OPEC.

If the official national accounts statistics are taken at face value, the industrial countries saw real net exports to all their trade partners slide by 1% of OECD GNP in 1986.[**] The eroded trade positions have impaired business confidence, notably in Europe and Japan, taking toll of domestic investment. In addition, they have fed protectionist instincts, witness the U.S. instance. Worst of all, occurring in the major countries, they have helped confirm or set off the restrictive reflexes of policy-

---

[*] Three-quarters of this swing occurred among the nine OPEC members outside the Arabian Peninsula. Their oil output rose each year during 1981-85, exceeding quotas, but was flat last year. Their oil export revenues therefore fell in step with oil prices by 45%, or a total of $40 billion. The four countries of the Arabian Peninsula, especially Saudi Arabia, showed a quite different production trend. During 1981-85 their output fell in excess of 50%. Thus they absorbed the bulk of the drop in world demand for OPEC oil plus the above-quota production of the other OPEC members. In 1986, with netback pricing and no quotas during most of the year, output of the four increased over 30%. For Saudi Arabia, the shift was even more dramatic: an output recovery of more than 50% in 1986 followed a 65% drop between 1981 and 1985. With higher production offsetting much of the 1986 price decline, the combined oil export revenues of the four fell only 27%, or $14 billion. For Saudi Arabia, the revenue loss was even smaller, under 20%, and its current account deficit was little changed from 1985, at roughly $13 billion.

[**] Table 1 shows that, in dollar terms, the infamous "global discrepancy" in current accounts — the phenomenon whereby the official data show the world in massive deficit with itself — diminished in 1986. But in real terms, the story seems to have been the opposite. At 1980 prices, the discrepancy rocketed some $75 billion since only half the near-$150 billion recorded deterioration in OECD real net exports showed up as gains by OECD trade partners. Given the importance attached to growth statistics, this discrepancy is more than an academic curiosity warranting protracted expert study to inconclusive result. World economic growth in 1986 may be understated in the official statistics — or overstated in prior years — inasmuch as they rely on national estimates of external demand. Whether the discrepancy is attributable to OECD countries or their partners cannot be determined.

Table 2

Distribution of the OPEC current account

billions of dollars

	1981	*1985*	*1986*
*Four Arabian Peninsula countries**			
Oil production, mm bpd	13.4	6.5	8.6
Oil exports	150	51	37
*Other exports***	12	10	8
*Total imports***	—113	—80	—70
Investment income, net	19	19	16
Current account	68	0	—9
*Nine other members****			
Oil production, mm bpd	10.1	10.8	10.7
Oil exports	104	85	46
*Other exports***	18	21	21
*Total imports***	—148	—94	—84
Investment income, net	2	—7	—7
Current account	—24	6	—24

*Kuwait, Qatar, Saudi Arabia, and the UAE.

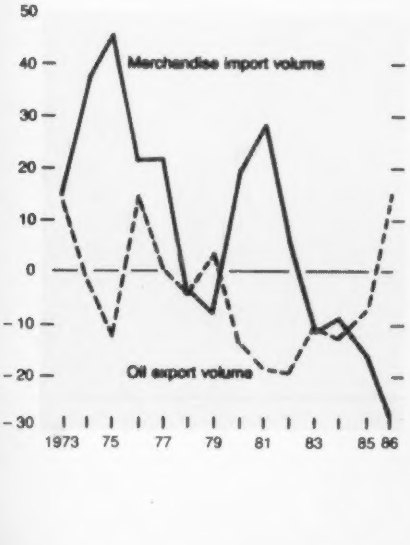
**Goods and services, excluding investment income.

***Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Libya, Nigeria, and Venezuela.

Chart 3

OPEC trade volumes

percent change



makers — the reverse of the therapy appropriate for an underperforming world economy.

Last year's oil-price drop reinforced the disinflationary global climate that has prevailed since 1981. OECD consumer-price inflation fell to a 22-year low of 2.3% by end-1986. But the impetus to world economic growth once expected from lower oil prices failed to materialize, mainly because the contractionary adjustment of oil producers to shrunken revenues was much stronger than the expansionary response of consumers benefiting from lower oil prices. OECD real GNP growth has been slipping since 1984 (see Table 4). G-7 summits, supposedly keen to bolster growth, have been long on rhetoric advocating "convergence." There has indeed been convergence, but of the unhelpful variety that has limited U.S. economic growth with no constructive offset by faster growth in Japan and Europe. To the contrary, Japan's GNP growth has slowed drastically and Europe's has stayed in a rut below 2.5%, despite the domestic demand boost that both have enjoyed from lower interest rates and oil prices.

Looking to the future, the reduction of the U.S. federal budget deficit now in progress is crimping U.S. domestic demand. Still, U.S. GNP growth may edge higher on the basis of improving real net exports. But, driven now mainly by the dollar's depreciation, *real* net export trends are a powerfully negative force on GNP for Japan and Europe. Expansionary domestic demand policies would be the proven antidote. But neither Japan nor Europe — in particular, Germany — has yet seen fit to espouse them. There is therefore little basis for visualizing OECD real GNP growth above 2.3% in 1987, or 2.5% annually during the next several years. Moreover, there now is a preponderance of downside risks in the growth outlook. It is against this subdued, even recession-prone, global economic background that oil consumers and producers must develop their strategies for the years ahead.

Oil demand

In 1986 free-world oil consumption rose by 1 million bpd, or 2.2%, after contracting for six years in a row with the single exception of 1984. There also was a sharp rise in world oil inventories during 1986, so that free-world oil demand soared by nearly 2 million bpd, or over 4%.

OECD oil consumption was up 2.4% last year, reversing a minor portion of the 7.6 million bpd cumulative decline of 1980-85, when it had sagged 3.3% annually on average (see Table 5). Half the 1986 increase came from the United States, where the rise was 2.7%. The remainder came from Europe, where consumption grew 3.4%. By contrast, Japan's consumption was virtually unchanged. Aggregate LDC consumption was up 1.7%, but trends varied widely among countries. Oil exporters' consumption fell by 3% on average, as was to be expected given their much reduced economic growth. Most oil importers recorded increases: in the five largest — Brazil, India, Korea, Turkey, and Taiwan — consumption rose over 7%; this was almost twice the rate seen during the preceding two years of economic recovery, and far in excess of the average 1% annual increase recorded during 1980-85.

Industrial-countries' oil consumption outpaced the estimated 1% rise in their energy consumption last year and nearly equaled their 2.5% economic growth (see Table 6). In the preceding decade, by contrast, both OECD real GDP and energy consumption rose faster, or fell less, than oil consumption. The 1986 turn-

Table 3

Exports to OPEC

	United States	*Japan*	*Germany*	*Twelve principal industrial countries**
$ billions				
1982	22.9	21.8	15.7	106
1985	12.5	13.2	8.5	65
1986	10.8	11.6	8.2	59
% change in 1986				
In dollars	—13	—12	—4	—8
In exporter's currency	—13	—38	—29	—22
Change in 1986 as % of 1985 GNP	—.04	—.37	—.40	—.17

*United States, Canada, Japan, Belgium, France, Germany, Italy, Netherlands, Spain, Sweden, Switzerland, and United Kingdom.

Table 4

Real GNP

percent change

	1984	*1985*	*1986*	*1987*
Industrial countries	4.7	2.8	2.5	2.3
United States	6.4	2.7	2.5	2.4
Canada	5.5	4.0	3.1	2.3
Japan	5.1	4.7	2.5	2.0
Europe	2.5	2.2	2.4	2.3

around encouraged the view that an enduring revival of industrial-country oil demand was in the offing. However, for several reasons a more sober judgment is warranted.

First, part of the rise in 1986 OECD oil consumption reflected circumstances that may not be repeated unless prices fall again to the lows of 1986. In the United States, electric utilities and some other industries switched from natural gas and, to a lesser extent, coal, to take advantage of temporarily lower prices for oil. Oil's advantage was particularly pronounced in the second and third quarters of 1986 (see Chart 4). It has subsequently evaporated with the firming of oil prices and the lagged downward adjustment of natural gas prices, now leading to reversal of the fuel-switching seen last year. In Europe, part of the 1986 increase in oil "consumption" actually represented stockpiling of heating oil, especially in Germany, the largest market, during the second quarter. Although consumers later began to draw down these stocks, stockpiling may have added as much as a full percentage point to Europe's apparent oil consumption last year.

Second, and more fundamental to the medium-term prospect for oil demand, is the remaining potential for energy conservation — notably in the United States and developing countries — and for fuel substitution at oil's expense — principally outside the United States — even at current oil prices. The scope for further gains in U.S. energy efficiency is evident from the example of other industrial countries. Although the ratio of U.S. energy consumption to real GNP has declined by over 25% since 1973, it still is twice that of Europe and Japan (see Table 7). Nonetheless, except for the strong economic recovery year of 1984, U.S. energy consumption has fallen steadily since 1979. It even fell slightly in 1986, despite the decline in energy prices and moderate economic growth, with the result that energy efficiency improved some 2.6%. Although energy consumption may rise this year, it is likely to lag real GNP growth.

Transportation is the sector promising the greatest gain in U.S. energy efficiency. At present, it takes over 63% of U.S. oil consumption — and more than one-quarter of *all* oil consumed by the free world. Passenger cars in use in the United States averaged just under 18 miles per gallon (mpg) in 1985. Although this was a near-37% improvement from the 1973 low, it was well below the average of over-26 mpg for automobiles newly produced by the "Big 3" U.S. automakers, let alone the over-30 mpg average for import models. The faster the growth of real GNP, the faster the old stock of cars will be replaced. Efficiency will rise and largely offset the growth in oil use attributable to a rising car population and higher mileage driven. Other significant efficiency improvements are under way as housing and domestic appliances are replaced. In industry, competitive pressures on U.S. producers of goods and services, and heightened awareness of their need to contain costs generally, should encourage continuing energy conservation. U.S. energy efficiency further is prone to rise the more the economy tilts away from heavy manufacturing toward less-energy-intensive activities.

Compared with the conservation potential, U.S. oil substitution possibilities are smaller — although by no means exhausted. Oil's share in total U.S. energy demand fell rapidly in the aftermath of the second oil shock and decontrol of domestic prices. More recently, the decline has slowed and went into temporary reverse in 1986. At current prices, the decline should reassert

Table 5

Oil demand and supply

millions of bpd

	Level 1986	Changes 1985 from 1979	Changes 1986 from 1985	Changes 1987 from 1986
Consumption	46.6	—6.8	1.0	0.4
United States	16.2	—2.8	0.5	0.2
Europe	12.0	—2.8	0.4	—0.2
Japan	4.3	—1.2	0.0	0.1
Other OECD	2.3	—0.7	0.0	0.1
LDCs	11.8	0.8	0.2	0.2
Non-OPEC supply	28.2	6.1	0.0	0.0
United States	11.0	0.7	—0.3	—0.4
North Sea	3.7	1.5	0.1	0.1
Other OECD	3.1	0.2	—0.1	0.1
Mexico	2.8	1.4	—0.3	0.1
Other LDCs	5.7	1.8	0.3	0.2
CPE net exports*	1.9	0.5	0.3	0.0
Stockbuilding	0.9	—1.5**	1.1**	—0.8**
OPEC production	19.3	—14.4	2.1	—0.4
of which: crude oil	17.9	—14.8	2.0	—0.4

*Centrally planned economies' net oil exports.
**Change in the rate of stockbuilding.

Table 6

Industrial countries' GDP, and energy and oil consumption

average annual percent changes

	Real GDP	Energy consumption	Oil consumption
1967-73	4.7	5.0	7.4
1974-75	0.2	—2.5	—4.3
1976-79	3.9	3.0	2.7
1980-82	0.9	—2.9	—6.6
1983-85	3.2	1.2	—0.4
1986	2.5	1.0*	2.4

*Jan-Sep.

itself in 1987 but may subsequently be limited, not least by transportation needs. Even before last year's price fall, official forecasts expected only marginal further substitution.

In both Europe and Japan energy consumption started to rise before last year's price fall. Europe's energy demand in 1985 was 5% above the 1983 low, while Japan's was up 7% from its 1982 low. Rough estimates for 1986 indicate further increases in energy consumption, of 2.5% in Europe and around 1% for Japan. These brought energy demand close to the peaks of 1979 in both. Still, on average, European energy consumption has nearly paralleled real GDP since the cyclical low, albeit with substantial variations among countries. Although most energy-consumption growth was captured by non-oil fuels during the first half of this decade, oil took about half the 1986 increase. By contrast, energy consumption in Japan has run well behind GDP and the proportion of its energy needs met by oil continued to fall even in 1986. In percentage terms, barely one-third of last year's fall in international oil prices had been passed through to Japanese consumers by year-end. Moreover, the industrial sector, which accounts for about 40% of Japan's total oil use, has entered a period of very slow growth. In electricity generation, which accounts for 30% or so of Japan's oil consumption, oil continues to be displaced in favor of coal, gas, and nuclear fuels.

Substitution offers greater promise for curbing oil use in Japan and Europe than in the United States. Because of their geography, historical dependence on imported energy, and tradition of higher energy taxes, both regions have long been more efficient energy consumers than the United States.* However, given that oil still meets a higher proportion of their total energy demand, both Japan and Europe have scope for further curbing their reliance on oil. Both have access to ample supplies of natural gas or coal and projects are under way to exploit them. Although German and Swedish interest in nuclear power is fading in favor of natural gas and coal, the French nuclear program — much the largest in Europe — continues to advance, and the British government recently gave the go-ahead for a new nuclear plant.

At current prices, new substitution initiatives in Japan and Europe may become less feverish but are unlikely to cease. For one thing, policymakers doubt that low oil prices will last. For another, as large importers of energy, these countries are strongly committed to diversification of energy sources for reasons of security. Besides, exporters of non-oil fuels to these markets are keen to maintain and expand sales. Judged by the share of energy supplied by oil, Japan has more room to adjust, but Europe's suppliers of non-oil energy are more active than their Asian counterparts. This is particularly true of the exporters of natural gas to Europe — Norway, the Soviet Union, the Netherlands, and Algeria — whose gas reserves exceed those of oil. Altogether, Europe's gas situation is as much supply- as security-driven.

Governments in both Japan and Europe will continue to stress energy diversification. Their policy instruments include higher taxes on petroleum products than on other fuels — long their standard practice;

---

*Although Japan and Europe — especially the smaller Mediterranean countries — still have room for further conservation gains, their most significant opportunities lie outside the oil-dependent transportation sector. Since 1973, this sector's oil use has grown by nearly 30% in Japan and 25% in Europe, now accounting for nearly 40% and over 50%, respectively, of their total oil consumption. In these countries, unlike the United States, major efficiency gains in transportation are likely to depend more on new technology than on routine automobile replacement.

Chart 4

U.S. fuel prices
prices to electric utilities
index, heavy fuel oil in 1985 = 100

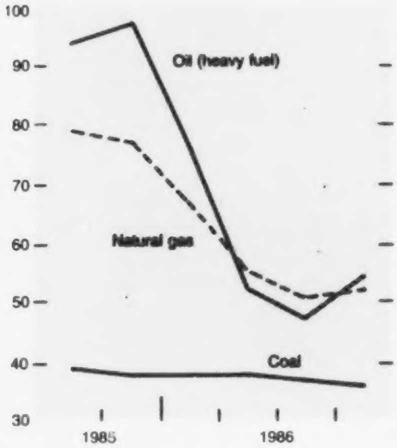


Table 7

Conservation and substitution

	1973	*1979*	*1985*	*1986*
Energy consumption, 1973=100				
United States	100	106	99	99
Japan	100	106	105	106
Europe	100	107	103	105
Ratio of energy consumption to GDP				
United States	144	130	108	105
Japan	75	65	50	50
Europe	71	66	58	58
Oil as % of energy consumption				
United States	47	47	42	43
Japan	77	72	55	54
Europe	61	56	46	46

a tendency in some countries to pass on to consumers a smaller proportion of oil-price declines than of increases; and habitual government fiat concerning the fuel choices of public-sector industries and utilities. Nine EC countries raised taxes last year on at least some petroleum products. Even had taxes not risen, final prices to users would have fallen less in Europe than in the United States during 1986, because Europe's taxes already were so much higher.

In most LDCs, rapid population growth, the desire for accelerated economic growth, the need to switch energy consumption away from depleting traditional sources, such as wood, plus the energy-using character of modernization and development, point to a fast-rising appetite for energy, including oil. However, appetites often go unsatisfied. Actual LDC oil consumption is likely to be restrained by sluggish LDC export prospects in a slow-growing world economy, financial problems in some of the larger LDCs, and poor domestic policies in all too many cases. Further, the raising of domestic oil prices in many LDCs during the early 1980s plus their reluctance to pass on price declines for budgetary and financial reasons should contain LDC oil consumption. In addition, some of the NICs, such as Korea and Taiwan, are adopting energy programs not unlike those of the industrial countries.

The overall implication is that free-world oil consumption — even though it will be stronger at current oil prices than at the $30 level — should grow at a subdued rate, generally below that of OECD real GDP. In 1987, with 2.3% OECD economic growth plus the reversal of the temporary factors that boosted U.S. and European oil consumption last year, the increase in free-world oil consumption may run less than half last year's 1 million bpd, or under 1%. In the first quarter of 1987 OECD consumption grew just 1%; the U.S. increase in the first four months is estimated at 1.5%. Beyond 1987, should oil prices in *real* terms remain around present levels and OECD economic growth average 2.5%, oil consumption growth could run 1%-1.5% per annum, for an additional 600,000 bpd each year on average. Should economic growth falter, the growth in oil consumption could be substantially less, or even nonexistent.

Non-OPEC oil supply

In 1986 non-OPEC oil supply failed to increase in aggregate for the first time in a decade. Most of the smaller non-OPEC LDCs boosted production, and net oil exports from the Centrally Planned Economies (CPEs) rose. But North Sea production was virtually flat and output declined in the United States, Mexico, and, to a lesser extent, Egypt. In the decade 1976-85, by contrast, non-OPEC supply grew by over 11 million bpd, an annual increment of over 1 million bpd. The North Sea contributed 30% of this increase, Mexico 20%, and the other non-OPEC LDCs 30%; the rest came from the United States and higher CPE net exports.

Since the United States accounts for 40% of total non-OPEC supply, the long-expected drop in its oil production is of central significance. The surprise lies in the size of the 1986 drop: between January and December it reached nearly 1 million bpd, leaving output of crude oil and natural-gas liquids at 9.9 million bpd by year-end. Held at that level, it would average almost 400,000 bpd less in 1987 than in 1986, a decline of 3.5%. Yet, notwithstanding the stabilization of output during the first months of this year, costs and geology point to renewed declines. Even

Table 8

Proven oil reserves

as of end-1986

	Billions of barrels	Ratio to 1986 production*
World	697	34
OPEC	478	74
Middle East	396	94
Saudi Arabia	170	95
Non-OPEC	141	17
Mexico	55	61
Other LDCs	29	15
United States	25	8
Norway	11	35
United Kingdom	9	9
Canada	7	13
Other OECD	4	12
CPEs	79	14
USSR	59	13
China	18	20
Others	2	12

*Years to exhaustion at 1986 production rate.

the tenfold price rise of the 1970s, and ensuing domestic decontrol, merely stabilized output in the lower 48 states. All of the past 10 years' increase in U.S. production came from Alaska, where output rose in 1986 but is expected to begin falling before the end of this decade. The United States, as a mature, high-cost producer, has been severely affected by the 1986 fall in oil prices, the weakening in oil-industry finances, and resulting cutbacks in exploration and development. Depending on whether oil prices rise moderately or remain at current levels in real terms, the decline in U.S. production from end-1986 levels through 1990 could reach anywhere between 500,000 and over 1 million bpd. Higher oil prices primarily would benefit U.S. natural gas production. They would alter the degree, but not the direction, of the U.S. oil output trend.

The outlook for non-OPEC oil supply outside the United States is mixed. Some of the sources contributing most to its increase over the past decade — the North Sea, CPE net exports, and Mexico — will see much smaller increases or even declines. U.K. North Sea output is peaking and a gradual, geology-determined decline is about to set in. A leveling off, or even a gradual fall, is likely in CPE net exports. Norway and Mexico have potential for further large gains in output (see Table 8) but may hold back for policy reasons. Norway is concerned about the balance of its economy and the strains that overly rapid, yet often erratic, oil-related investment places on employment and activity in the non-oil sector. In Mexico, budgetary and financial considerations limit the state oil company's development spending. Both nations are mindful of conservation and political reasons to contain the growth of oil output, and have shown some willingness — especially Mexico — to complement OPEC restraint.

The most likely source of rapid increase in non-OPEC oil supply over the next few years will be the numerous non-OPEC LDCs that are net oil importers or modest exporters. The largest such producers at present are Egypt, India, Brazil, Oman, Malaysia, and Argentina. In the future, significant increases are expected from Colombia, North Yemen, Angola, Syria, and — to some degree — Brazil. Although marginal individually, these countries' collective contribution to world oil supply may well become substantial. In the ten years to 1985, it rose almost 3.5 million bpd. It was up almost 300,000 bpd last year — nearly equaling the fall in U.S. production — and may rise another 1 million bpd by the early 1990s.

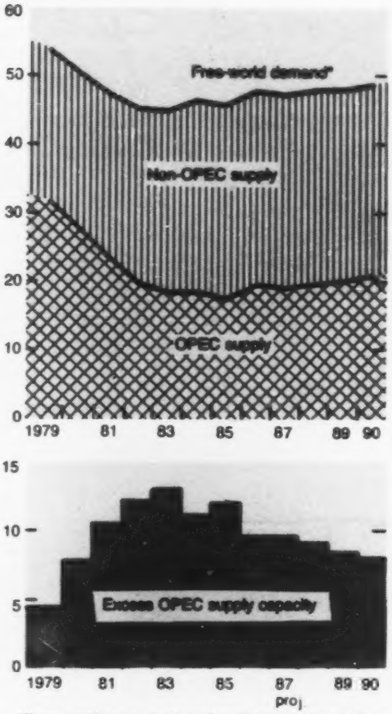
In total, non-OPEC oil supply may be about flat or at best marginally rising in the next few years. At some point, it is likely to start a gradual decline. The timing of this remains uncertain, since the rate of U.S. production decline is highly sensitive to price expectations and oil-company finances, and the extent to which OPEC will win the cooperation of nonmembers is unpredictable.

OPEC oil supply and the price outlook

OPEC oil production capacity is over 25 million bpd (see Chart 5), a massive 10 million bpd excess over its planned production rate for the first half of this year. More than 90% of the free-world's excess capacity is in OPEC hands, the Mid-East members alone holding over 70%. Moreover, the prospective longevity of Mid-East oil reserves is exceptionally large. These imbalances in actual and potential supply, together with the prospect of only modest and gradual growth in world de-

Chart 5

Long-term trends in oil demand, supply, and capacity
millions of barrels per day



*Free-world consumption plus change in inventories through 1987.

mand, are central to any assessment of the outlook and risks for oil prices. The sheer size of the existing capacity makes plain that quite a number of years must elapse before it recedes to a point that OPEC will find comfortable.

Still, OPEC members can expect gradual gains in their world market share for oil — initially, supplying the bulk of the increase in demand and, later, offsetting the fall in non-OPEC supply as well. In 1986, OPEC met the entire growth in free-world oil demand, both consumption and stockpiling, raising production by over 2 million bpd; Saudi Arabia provided 70% of the increase. OPEC covered 41% of free-world demand in 1986, versus a low of under 38% in 1985. At current oil prices in real terms, the bulk of future incremental oil imports, particularly by industrial countries, will be supplied by OPEC members. Their *crude* oil production, which is expected to average over 17 million bpd this year, may reach 20 million bpd by 1990 on an optimistic view. This outlook is the reverse of OPEC market share and output experience in the first half of the 1980s, but in line with the longer-term trend of growing world reliance on OPEC oil supply for reasons of geology and resource cost. The likelihood that the trend will reassert itself has been heightened by the 1986 fall in oil prices, notwithstanding their subsequent rebound.

Awareness of this favorable trend has helped reinvigorate OPEC. Current production cutbacks are more palatable given the expectation that demand for OPEC oil will grow in the future and progressively lessen the required restraint of output. Another discipline on present production behavior stems from the fear that Saudi Arabia may again boost its output if others cheat excessively. Thus, with the experience of 1986 fresh in mind, OPEC members now show greater determination to restrain output than in the past. Their oil export revenues dropped more than $50 billion last year, notwithstanding a 2 million bpd step-up in volume. As prices crumbled, even recalcitrant members came to see that further production increases were financially counterproductive and that they had more to gain by collective cutbacks — a realization affirmed by the strong and prompt response of spot-market prices once cutbacks were announced.

Without OPEC cooperation, oil-market turbulence would surely revive. Foremost among political risks is the unpredictable course of the Iran-Iraq war, which could provoke large and abrupt movements in oil prices in *either* direction. The downside price risks lie in the pressing revenue needs of both countries and the quota rivalries these stir within OPEC. At present, Iraq is not formally part of the OPEC quota agreement. Its rising oil production adds to world supply and may undermine the willingness of other OPEC members to curtail their output. The upside price risks lie in the possible constriction of oil supply from the Middle East, whether by physical destruction or indirectly through changes in political conditions.

No less important are the financial risks facing OPEC members. Difficulties persist despite a projected reduction of over $10 billion in their combined current account deficit this year (see Table 9). Even though OPEC oil revenues are likely to be $11 billion higher than in 1986, some members have had to cut output so deeply to defend fixed prices that they receive little net revenue benefit. Moreover, aggregate OPEC oil revenues in 1987 still will be more than $40 billion less than in 1985 and the weakness of the dollar is eroding their import purchasing power. With limited access to new external finance (see Table 10),

Table 9

OPEC current account balance

millions of dollars

	1980	*1985*	*Est. 1986*	*Proj. 1987*
*Exports of goods and services**	310	167	112	124
Oil	284	136	83	94
Other	27	31	30	30
*Imports of goods and services**	—210	—169	—151	—148
Balance	100	—2	—39	—24
Investment income, net	15	12	9	7
Official transfers, net	—10	—4	—3	—3
Current account	106	6	—33	—20
of which				
Four Arabian Peninsula countries	71	0	—9	—7
Nine others	35	6	—24	—13

*Excluding investment income.

Table 10

Indicators of OPEC external assets and liabilities

billions of dollars

		1986	
	1985	*1st half*	*2nd half*
*Deposits with banks**	160	150	144
Middle East	116	108	106
Others	44	41	37
*Debt owed to banks**	111	112	116
Middle East	42	41	43
Others	69	71	73
*Net position with banks**	49	37	27
Middle East	74	67	63
Others	—25	—30	—36
Change in net position adjusted for exchange rate changes	7	—12	—11
Middle East	1	—7	—5
Others	7	—4	—6

*BIS-reporting banks, end of period data.

most OPEC members have no good choice but to maintain domestic austerity. Financial stress may test some members' determination to curtail output. Widespread indiscipline could spark a new fall in oil prices.

Less realized is the risk that financial stress on OPEC alternatively could lead to higher prices, even without strong fundamentals. OPEC members could try to compensate for their slow-growing oil exports by engineering large price increases in real terms through severe cuts in their production. Such a tactic would raise OPEC oil revenues, but only temporarily. Sharply higher prices would delay, or even prevent, the narrowing of the world oil demand/supply imbalance. Not only would oil consumption and non-OPEC supply respond directly to escalating prices, but the viability of synthetic oil substitutes and energy-saving technologies would improve — eventually perhaps stimulating the commercial application of superconductivity technology in the transportation sector.

Besides political and financial risks, OPEC faces economic forces beyond its sole control. The growth of external demand for OPEC oil is unlikely to be rapid or steady. Price-induced adjustments in oil consumption and non-OPEC supply are prone to be gradual, while OECD economic growth looks subject to downside risks. Last year's price collapse was financially damaging for all oil producers and, at the same time, turned out much less of a bonanza for economic growth than expected. Equally, much higher oil prices now would strengthen the already-ominous recessionary forces in industrial countries and could precipitate an outright fall in oil consumption, as occurred after the two oil shocks of the 1970s.

On the whole, there is much to be said for the present level of oil prices. For the first time in fifteen years, the major consumers are expressing little objection to current prices and OPEC production policies. In the future, gradual and moderate oil-price increases in nominal terms — maintaining relative stability in real terms — would be the best way to rectify global demand/supply fundamentals for oil consistent with the economic interests of both consumers *and* producers. After all, large real price movements in the past — in either direction — have proven harmful for both, especially OPEC members. Nevertheless, while the lessons of history make clear the desirability of future stability of oil prices in real terms, a happy outcome is far from certain. What is most to be avoided is the rapid escalation of prices, especially if driven by artificial restrictions rather than strong fundamentals. This would be sure to enrage the many critics of excessive industrial-country reliance on oil imports, whether alleged on financial or security grounds, and could well lead to economically wasteful policy choices.

U.S. oil concerns

The uncertainties surrounding future OPEC oil production policies and price trends stir greatest alarm in the United States — even though U.S. dependence on imported oil and energy is, and will remain, much smaller than that of most other industrial countries. Oil-related policy concerns in Japan and Europe tend to focus principally on the economic and financial costs of reliance on oil imports. Those costs play some modest role in the U.S. policy debate, but the paramount U.S. interests are national and free-world strategic security and the health of the domestic oil industry. When oil prices and U.S. oil production fell last year, U.S. political anxiety

Table 11

U.S. oil demand and supply

millions of bpd

	1985	1986	1987	1990*
Consumption	15.7	16.2	16.3	16.7
Production	11.3	11.0	10.6	9.8
*Net imports***	4.3	5.3	5.7	6.9
as % of consumption	27	33	35	41

*Based on the following assumptions: 1% annual growth in consumption during 1988-90 with 1990 production at the midpoint of the range projected by the U.S. Department of Energy.

**After stock changes.

climbed despite the lower inflation and balance of payments saving brought by lower oil prices.

As a global power, the free world's largest oil and energy consumer, and its largest — albeit high-cost — producer, the United States has a special position in oil affairs. U.S. oil import growth would be much higher than consumption growth, even were domestic production to hold its own. In fact, U.S. production is declining, by nearly 1 million bpd during the course of 1986 alone. Should it fall by another 800,000 bpd between now and 1990, a 1% annual rise in consumption would generate import increases in excess of 6% per annum (see Table 11). By 1990, on this scenario, imports would supply 40% of U.S. oil consumption — a figure prone to heighten national security anxieties — compared with just 27% in 1985. At an assumed oil price of $22 by 1990, U.S. net oil imports would be $25 billion higher than last year. This rise would impede the reduction of the outsize U.S. trade deficit, adding to the adjustment burdens on the non-oil trade sector and U.S. consumers' living standards. Of course, lower U.S. economic growth or higher oil prices would slow oil consumption, and thereby import growth, but would not halt or reverse the underlying trend.

After several years of indifference, this somber outlook has sparked belated debate about U.S. energy and oil policies. So far, most proposals focus on supply. They include opening of additional federal lands to exploration; reduction of the minimum bids acceptable for federal offshore leases from $150 per acre to $25; abolition of the Windfall Profits tax; raising the fill rate of the Strategic Petroleum Reserve; tax changes to help small oil producers; and regulatory changes to stimulate production and utilization of non-oil fuels.

Besides these generally sensible, market-oriented proposals, prominent voices are urging a stiff fee on oil imports. By raising the price of imported oil — and inevitably also of domestic oil — a sufficiently large import fee would tend to raise domestic production and curb consumption. But the attendant costs and disadvantages would be disproportionate to the likely benefits. The extent to which U.S. oil output would respond to higher prices and revenues for domestic producers is far from certain. Initial gains would be at the expense of future production — truly, a policy to "drain America first." An oil-import fee would raise domestic energy costs generally, but inequitably across regions and industries. The foreign policy and administrative implications also are daunting: there would be inevitable pressures to exempt oil imports from neighboring countries and NATO allies, not to mention imports destined for favored domestic uses; some exemptions would surely be granted, quite possibly to the point that the fee would wind up as a discriminatory tax on OPEC, a consequence with awkward ramifications of its own. At a minimum, an oil-import fee would breed a bureaucratic nightmare comparable to the price-control follies of the 1970s.

Remarkably, for a measure usually promoted for its output-boosting power, a U.S. oil-import fee would do less to raise production than to trim consumption, thanks to adverse price, income, and employment effects. The U.S. Department of Energy estimates that fees of $5 or $10 per barrel would cut twice the number of barrels from consumption that they would raise in domestic production. Almost inadvertently, therefore, an oil-import fee would address what should be the real U.S. priority — the reduction of U.S. oil consumption.

But there are less costly ways to achieve this vital end. One mechanism, with a strongly proven track record in the United States, is the government-mandated mileage-efficiency standard for new automobiles. Disturbingly, the standard was recently weakened and remains under attack in one manifestation of the complacency typical of U.S. thinking on oil consumption — a complacency evident in last year's failure to renew the energy tax credit for household conservation and the more recent relaxation of interstate highway speed limits. Although the latter action is likely to raise oil consumption only trivially, the same cannot be said of any backsliding on the auto standard.

An even more important mechanism to assure oil conservation — common in other major industrial countries, but unpopular in the United States — is to raise taxation of petroleum products, especially gasoline, to levels that deter consumption. The United States would be well advised to rethink the tax issue, since the nation's oil and energy consumption is profligate by any standard. The 63% of U.S. oil consumption used for transportation, and the lack of readily available substitutes in this sector, both argue that increased federal taxes on gasoline are the economically superior means to contain oil imports.

Quite apart from slowing the rise in oil consumption a higher federal tax on gasoline also would help reduce the federal budget deficit — provided that the additional revenue is applied to this purpose. According to the U.S. Department of Energy a 25¢ per gallon increase in the federal gasoline tax could raise federal revenues by over $150 billion and reduce the federal deficit by over $90 billion over the next seven years, cumulatively, after adjustment for the impact of such a tax on oil consumption and the economy in general.

Gasoline taxes already are being raised at the state level, not least because the impact is relatively painless now that prices at the pump are so much lower than in the early 1980s, especially in real terms. The same view should be taken at the national level, indeed more forcefully. The objection that the gasoline tax is regressive is unpersuasive: the burden of any particular tax should be appraised in the context of the overall tax and benefit structure, not in isolation. Nor, in the context of near-universal agreement that higher taxes are an essential ingredient of any realistic plan to rein in the budget deficit, can it be demonstrated that gasoline taxes have more adverse effects on GNP and employment than do other imposts.

Admittedly, raising the gasoline tax would do nothing to foster domestic oil production. Still, current U.S. production and the development of future U.S. capacity would be encouraged by the previously noted market-oriented supply measures — at least to the extent it is economically advantageous to invest in developing the limited remaining domestic sources. Seen in relation to the quest for "security" from overdependence on oil imports, the reality of the limited U.S. production potential completes the ultimately overwhelming case for stiffened taxation of U.S. gasoline consumption.

Statistical appendix

For key to data in tables see April 1987 issue.

Effective exchange rates — industrial countries, 12

Real effective exchange rates — developing countries, 13

International banking market size, 13

International bond issues and bank credits, 14

Eurocurrency deposit rates, 15

International bond yields, 15

Central bank discount rates, 16

Day-to-day money rates, 16

Treasury bill rates, 17

Representative money market rates, 17

Commercial bank deposit rates, 18

Domestic government bond yields, 18

Commercial bank lending rates to prime borrowers, 19

Domestic corporate bond yields, 19

Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates – industrial countries

Index numbers, 1980-82 average=100.

		United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
Nominal against 15 other industrial-country currencies																	
1981		99.5	100.2	105.8	104.0	100.4	97.2	98.8	102.1	98.9	101.8	97.1	99.4	98.3	99.2	100.1	103.3
1982		109.8	99.4	98.8	100.1	93.1	102.8	92.8	98.1	101.7	92.3	102.7	94.1	106.3	95.7	101.7	92.8
1983		114.2	100.8	107.8	92.0	87.3	107.6	90.3	91.6	103.6	90.0	105.0	78.4	111.5	96.4	99.4	82.2
1984		122.4	97.3	113.0	94.2	84.4	107.4	86.7	88.1	103.6	88.9	104.0	77.4	110.5	93.9	97.8	84.3
1985		127.1	92.8	115.8	76.3	85.4	107.8	82.1	88.2	104.2	89.5	104.0	75.6	109.5	95.0	96.6	83.9
1986		106.0	87.6	150.1	61.4	87.4	116.1	82.9	80.7	107.8	92.9	110.3	73.4	118.1	99.7	89.3	81.6
1986																	
November		103.5	87.4	152.7	58.1	87.4	119.5	84.4	75.1	109.1	94.2	112.9	72.8	120.4	102.1	84.7	80.8
December		102.5	87.8	152.4	59.0	87.5	120.2	84.6	75.0	109.4	94.5	113.3	72.6	120.2	102.5	83.9	80.5
1987																	
January		98.5	88.1	156.1	57.2	87.4	122.2	84.0	74.8	110.4	95.9	114.9	71.9	121.7	103.9	83.8	79.9
February		96.9	89.7	156.4	57.2	87.9	122.7	83.9	74.8	110.7	96.4	115.0	71.3	121.4	104.6	84.4	80.0
March		96.0	90.5	157.9	58.3	87.3	121.7	83.3	78.1	110.3	95.7	114.1	71.1	121.4	103.7	84.8	80.6
April		94.0	90.2	165.9	59.1	87.2	121.4	82.9	78.8	110.0	95.5	114.1	71.1	123.0	103.2	85.3	80.6
April	*17*	93.7	90.2	166.7	58.7	87.3	121.5	83.0	78.7	110.1	95.6	114.2	71.0	123.2	103.6	85.6	79.4
	24	93.9	89.4	167.6	58.8	87.1	121.2	82.9	79.0	109.9	95.5	114.0	71.2	123.8	103.1	85.7	80.9
May	*1*	93.3	88.7	169.0	58.0	87.0	121.6	82.8	79.6	110.0	95.5	114.2	71.2	123.9	103.4	85.5	80.5
	8	92.9	88.4	169.4	58.0	87.0	121.7	82.5	80.1	110.1	95.5	114.3	71.3	124.0	103.6	85.5	80.4
	15	93.2	88.6	169.1	58.6	87.1	121.7	81.9	80.0	110.1	95.5	114.3	71.3	123.9	103.6	85.7	80.4
	22	93.2	88.3	168.6	58.9	87.1	121.7	81.8	80.0	110.1	95.6	114.4	71.4	124.1	103.6	85.8	80.4
Real against 15 other industrial-country currencies																	
1981		100.8	99.5	104.8	102.6	100.0	96.9	98.9	102.5	99.4	101.4	97.1	99.6	98.7	98.9	101.3	101.9
1982		109.3	100.6	92.4	106.7	97.3	99.9	98.5	98.8	101.2	91.9	100.5	99.0	103.0	97.9	103.2	95.6
1983		112.7	102.8	96.8	101.9	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.9	105.1	100.4	102.0	90.7
1984		119.6	100.2	97.8	106.4	97.0	98.0	101.8	90.2	103.0	85.9	97.8	91.1	100.1	99.2	100.5	96.0
1985		122.5	96.5	96.6	89.5	100.5	96.7	100.2	92.8	103.3	85.3	96.8	92.5	98.0	101.2	99.5	96.9
1986		101.5	93.4	119.2	78.9	103.9	103.3	102.6	87.4	106.8	84.6	101.4	94.0	105.6	107.5	97.1	96.0
1986																	
November		99.0	93.9	119.2	77.8	105.4	105.4	104.5	81.5	107.4	84.3	104.5	93.6	107.9	110.3	95.7	95.8
December		98.0	94.2	118.9	79.7	105.6	105.8	105.0	81.6	107.9	84.5	104.4	93.7	108.0	110.6	94.4	95.7
1987																	
January		94.3	94.9	120.8	77.4	105.0	108.2	105.5	82.0	108.1	85.9	103.9	93.5	108.2	111.1	95.4	95.1
February		93.2	95.7	120.5	78.3	105.7	107.8	105.4	82.2	109.1	85.8	104.3	93.0	108.6	111.9	98.5	95.4
March		92.6	96.1	121.1	80.1	105.9	107.1	103.9	86.0	108.2	84.5	103.9	93.5	108.0	112.3	98.7	95.8
April		90.5	96.8	126.2	81.6	106.2	106.8	103.3	86.9	107.1	83.7	104.2	93.4	109.2	111.2	99.3	96.5
Real against 18 other industrial-country and 22 LDC currencies																	
1981		99.8	99.4	104.7	102.5	99.5	96.2	98.2	102.0	98.9	100.9	96.6	98.9	98.0	98.7	101.3	101.6
1982		109.6	101.8	94.0	105.2	96.9	99.3	98.1	98.5	101.1	91.8	99.5	98.9	102.6	97.7	103.0	95.4
1983		114.9	104.8	100.4	102.1	94.4	100.6	100.8	93.0	102.1	88.2	99.5	89.2	105.1	100.3	101.9	90.9
1984		120.8	102.7	102.4	106.7	96.4	96.8	101.0	89.7	102.7	85.0	95.9	91.3	99.8	99.0	100.5	95.7
1985		124.0	99.2	101.5	90.1	100.0	95.8	99.8	92.3	102.9	84.5	94.8	93.2	97.8	101.2	99.8	96.8
1986		107.2	94.6	124.1	80.9	104.5	104.5	104.1	88.2	107.5	85.1	101.4	96.6	107.5	108.0	97.9	96.8
1986																	
November		105.3	94.9	124.4	79.8	106.5	107.3	106.6	82.8	108.7	85.3	105.0	96.6	110.7	111.0	96.6	96.8
December		104.7	95.2	124.2	81.7	106.8	107.9	107.4	83.0	109.3	85.5	105.1	97.1	110.9	111.4	95.4	96.8
1987																	
January		101.3	95.7	125.6	79.5	106.5	110.8	108.2	83.6	109.9	87.1	105.1	97.2	111.4	112.1	96.5	96.4
February		100.4	96.4	125.3	80.5	107.3	110.7	108.3	84.0	111.0	87.2	105.7	96.8	112.0	113.0	99.6	96.9
March		99.7	96.8	125.8	82.3	107.3	109.6	106.7	87.7	109.8	85.7	105.1	97.3	111.1	113.3	99.7	97.2
April		97.5	97.2	130.8	83.7	107.4	109.3	106.0	88.7	108.7	85.0	105.3	97.1	112.2	112.2	100.4	97.8

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1981	107.8	103.3	108.3	100.6	114.4	103.3	99.7	98.9	99.8	100.3	99.4	101.2	102.0	101.8	99.3	104.7
1982	77.0	112.9	97.3	105.9	82.9	104.6	110.2	101.6	111.7	101.9	105.6	106.7	100.8	96.6	108.6	96.0
1983	71.5	86.2	89.2	104.9	78.8	98.4	117.2	95.8	98.2	97.6	113.9	96.1	101.8	94.5	120.8	93.5
1984	80.1	85.7	90.1	99.6	91.8	105.8	86.0	100.2	96.8	96.5	119.7	107.9	102.4	97.1	119.5	91.1
1985	71.2	85.1	79.7	85.7	90.5	96.3	93.0	104.2	96.3	89.2	116.3	114.6	95.7	94.8	106.8	91.5
1986	61.0	74.5	68.7	67.7	65.1	93.8	87.2	93.9	72.3	73.9	95.2	90.2	80.3	87.3	100.9	71.1
1986																
May	60.8	72.8	68.5	68.1	65.7	90.6	89.8	95.2	80.2	75.1	92.9	88.4	79.1	88.4	101.5	71.3
June	61.3	73.0	70.3	67.7	66.6	91.9	90.2	96.1	80.4	75.4	93.1	87.4	79.3	89.5	101.9	70.8
July	61.5	72.1	69.5	66.7	65.0	92.0	89.8	91.7	78.1	70.6	91.9	87.8	78.6	89.0	100.9	69.7
August	60.9	72.1	67.9	66.0	62.3	91.8	89.7	90.3	76.6	69.7	91.5	85.7	78.5	89.0	99.4	67.7
September	58.8	72.4	67.6	65.9	60.6	93.5	90.0	92.2	61.8	70.3	91.0	86.5	78.0	84.9	100.4	67.4
October	58.8	71.6	67.7	64.9	60.5	96.7	90.7	92.2	55.4	70.6	93.0	88.1	77.5	84.6	100.8	67.6
November	59.4	72.9	68.1	64.6	60.7	100.8	92.2	94.8	56.3	71.8	94.9	89.0	78.6	85.4	102.0	65.7
December	58.7	75.9	68.0	64.5	59.7	105.1	60.4	93.5	56.0	72.0	93.2	90.0	78.5	86.7	102.1	64.6
1987																
January	56.2	75.6	65.5	65.3	60.7	107.6	52.7	89.4	54.7	70.3	91.2	87.5	76.4	85.0	94.4	63.5
February	55.6	71.8	66.2	65.6	61.2	93.4	53.2	88.9	54.6	70.8	91.4	85.8	74.8	84.6	93.3	63.2
March	53.4	71.1	66.8	65.0	61.9	96.3	53.1	89.0	53.8	72.2	90.5	85.4	74.3	87.5	94.7	64.2
April	53.3	74.4	64.4	64.5	62.9	97.5	52.8	88.8	52.3	72.5	90.1	82.1	73.2	88.8	94.8	63.7

International banking market size

at end of period, billions of dollars

	1981	*1982*	*1983*	*1984*	*1985*		*1986*		
					Sep	*Dec*	*Mar*	*Jun*	*Sep*
Gross claims									
Eurocurrencies, on residents and nonresidents	**1 929**	**2 146**	**2 253**	**2 359**	**2 622**	**2 833**	**2 947**	**3 040**	**3 347**
On nonbanks	557	634	665	694	761	822	854	875	914
On banks	1 372	1 512	1 588	1 665	1 861	2 011	2 093	2 165	2 433
In dollars	1 504	1 694	1 797	1 894	2 002	2 101	2 138	2 166	2 381
In other currencies	425	452	456	465	620	732	809	874	966
Domestic currencies, on nonresidents	**365**	**398**	**402**	**402**	**451**	**506**	**535**	**578**	**633**
On nonbanks	128	132	140	142	165	187	186	201	211
On banks	237	266	262	260	286	319	349	377	422
In dollars	188	211	221	215	205	215	203	210	219
In other currencies	177	187	181	187	246	291	332	368	414
Total	**2 294**	**2 544**	**2 655**	**2 761**	**3 073**	**3 339**	**3 482**	**3 618**	**3 980**
On nonbanks	685	766	805	836	926	1 009	1 040	1 076	1 125
On banks	1 609	1 778	1 850	1 925	2 147	2 330	2 442	2 542	2 855
In dollars	1 692	1 905	2 018	2 109	2 207	2 316	2 341	2 376	2 600
In other currencies	602	639	637	652	866	1 023	1 141	1 242	1 380
Gross liabilities									
Eurocurrencies, to residents and nonresidents	**1 954**	**2 168**	**2 278**	**2 386**	**2 641**	**2 846**	**2 964**	**3 059**	**3 379**
To nonbanks	372	432	479	497	546	585	610	632	662
To official monetary institutions	112	91	88	96	109	112	106	109	117
To other banks	1 470	1 645	1 711	1 793	1 986	2 149	2 248	2 318	2 600
In dollars	1 539	1 741	1 846	1 950	2 045	2 147	2 166	2 204	2 420
In other currencies	415	427	432	436	596	699	798	855	959
Domestic currencies, to nonresidents	**263**	**250**	**260**	**280**	**341**	**377**	**394**	**418**	**464**
To nonbanks	74	70	73	80	103	114	121	121	121
To banks	189	180	187	200	238	263	273	297	343
In dollars	126	116	135	146	159	169	166	171	191
In other currencies	137	134	125	134	182	208	228	247	273
Total	**2 217**	**2 418**	**2 538**	**2 666**	**2 982**	**3 223**	**3 358**	**3 477**	**3 843**
To nonbanks	446	502	552	577	649	699	731	753	783
To banks and official institutions	1 771	1 916	1 986	2 089	2 333	2 524	2 627	2 724	3 060
In dollars	1 665	1 857	1 981	2 096	2 204	2 316	2 332	2 375	2 611
In other currencies	552	561	557	570	778	907	1 026	1 102	1 232
Net market size	**1 155**	**1 285**	**1 382**	**1 430**	**1 572**	**1 676**	**1 735**	**1 800**	**1 910**

International bond issues and bank credits

millions of dollars

	1984	*1985*	*1986*	*1987*			*Jan-Mar*	
				Jan	*Feb*	*Mar*	*1987*	*1986*
By country of borrower								
Industrial countries	**177 077**	**226 711**	**270 231**	**21 575**	**21 836**	**20 096**	**63 507**	**59 925**
Australia	5 816	14 407	20 106	1 122	1 042	840	3 004	5 213
Austria	2 254	2 435	3 581	657	738	190	1 584	1 211
Belgium	1 847	3 269	4 952	697	108	210	1 015	1 788
Canada	13 124	17 184	21 633	957	882	963	2 802	4 093
Denmark	4 825	3 589	9 633	1 647	789	442	2 878	475
Finland	1 713	1 846	3 445	504	443	245	1 191	780
France	11 298	18 773	19 701	1 110	3 028	1 213	5 351	4 177
Germany	2 165	3 452	11 927	2 162	1 319	1 319	4 800	1 887
Greece	1 551	1 587	1 317	—	110	—	110	67
Ireland	1 377	1 881	4 179	—	113	—	113	664
Italy	6 933	11 033	12 962	686	480	583	1 750	2 321
Japan	17 526	21 269	35 508	2 206	3 176	4 558	9 940	5 791
Netherlands	1 973	2 299	3 579	672	452	358	1 483	1 185
New Zealand	3 208	2 707	8 078	789	438	259	1 486	1 332
Norway	1 324	3 905	6 644	782	668	1 459	2 909	600
Portugal	1 796	2 382	2 433	215	—	43	258	623
South Africa	1 422	825	—	—	—	—	—	—
Spain	4 931	3 913	7 015	55	342	—	396	490
Sweden	11 256	9 890	8 020	595	934	729	2 258	4 615
United Kingdom	8 899	25 424	24 295	3 778	1 208	2 422	7 407	5 504
United States	65 054	69 193	56 774	2 084	5 054	3 930	11 067	15 635
*Other**	6 765	5 447	4 448	859	511	334	1 704	1 483
Developing countries	**39 725**	**32 139**	**24 317**	**565**	**1 748**	**1 299**	**3 612**	**6 906**
Latin American countries	**17 464**	**8 115**	**3 192**	—	**551**	**54**	**605**	**512**
Argentina	4 212	3 700	17	—	—	—	—	17
Brazil	6 649	—	219	—	—	—	—	—
Chile	784	1 085	—	—	—	—	—	—
Colombia	589	1 052	89	—	—	—	—	—
Mexico	3 918	109	313	—	—	—	—	—
Venezuela	—	48	—	—	—	—	—	—
*Other***	1 312	2 121	2 554	—	551	54	605	495
Asian countries	**15 893**	**18 410**	**15 291**	**465**	**852**	**834**	**2 151**	**5 358**
India	945	818	1 721	25	252	262	539	686
Indonesia	1 924	451	1 358	16	175	—	191	956
Korea	6 201	5 898	3 134	25	—	145	170	1 133
Malaysia	2 605	2 219	1 328	20	65	—	84	54
Philippines	925	925	—	—	—	—	—	—
Thailand	1 221	1 497	1 401	—	—	100	100	610
Other	2 072	6 602	6 350	380	360	327	1 069	1 918
Middle Eastern and African countries	**6 368**	**5 613**	**5 834**	**100**	**345**	**412**	**857**	**1 036**
Algeria	821	1 450	1 344	—	—	75	75	407
Nigeria	985	—	—	—	—	—	—	—
Turkey	741	1 203	2 637	—	305	187	492	403
Other	3 821	2 960	1 853	100	40	150	290	226
Eastern European countries	**3 244**	**5 236**	**4 091**	**24**	**662**	**360**	**1 046**	**1 011**
Hungary	1 386	1 577	1 315	—	472	—	472	311
Soviet Union	1 051	1 469	1 821	24	190	79	293	550
*Other****	807	2 169	955	—	—	280	280	150
International organizations****	**13 287**	**20 635**	**18 916**	**2 261**	**2 303**	**1 374**	**5 938**	**6 033**
By type of instrument and currency								
International bond issues	**107 411**	**167 756**	**226 393**	**17 998**	**20 772**	**19 723**	**58 493**	**54 024**
Eurobonds	79 458	136 731	187 952	14 707	17 090	17 507	49 304	42 920
U.S. dollar	63 593	97 782	118 220	5 365	6 017	6 219	17 601	25 988
German mark	4 604	9 491	16 870	2 955	3 244	1 306	7 505	4 356
British pound	3 997	5 766	10 510	1 069	1 540	2 760	5 369	2 993
Japanese yen	1 212	6 539	18 673	1 603	3 216	3 349	8 168	4 626
European composite units	3 032	7 038	6 965	1 909	684	784	3 377	1 469
Other	3 020	10 114	16 713	1 806	2 388	3 089	7 284	3 487
Foreign bonds	27 953	31 025	38 441	3 291	3 683	2 215	9 189	11 103
U.S. dollar	5 487	4 655	6 064	450	500	600	1 550	2 264
German mark	2 243	1 741	—	—	—	—	—	—
British pound	1 292	958	322	—	—	—	—	109
Swiss franc	12 626	14 954	23 401	2 338	2 207	1 447	5 992	5 758
Japanese yen	4 628	6 379	4 756	246	735	—	981	2 345
Other	1 677	2 339	3 898	257	241	168	666	627
International bank credits	**125 922**	**116 964**	**91 164**	**6 427**	**5 777**	**3 406**	**15 610**	**19 851**
Eurocurrency credits	112 605	110 317	82 755	5 842	5 170	2 781	13 793	18 304
Foreign credits	13 317	6 647	8 409	585	607	625	1 817	1 546
Total	**233 333**	**284 720**	**317 556**	**24 425**	**26 549**	**23 129**	**74 103**	**73 874**

*Includes multinational organizations. **Includes unallocated. ***Includes COMECON institutions. ****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1983	1984	1985	1986			1987			
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Eurodollar										
overnight	9.50	8.63	12.25	5.75	6.06	22.00	6.00	5.87	6.25	6.50
one month	9.69	8.38	8.00	5.81	6.25	6.50	6.06	6.31	6.44	6.69
three months	9.81	8.63	7.88	5.81	6.00	6.25	6.12	6.31	6.50	7.00
six months	10.06	9.13	7.88	5.81	5.94	6.12	6.12	6.31	6.56	7.25
twelve months	10.38	9.81	7.94	5.88	6.00	6.12	6.12	6.37	6.69	7.62
Euro-Canadian dollar										
one month	9.13	9.88	9.00	8.06	8.19	8.00	7.37	7.12	6.87	7.37
three months	9.50	10.81	9.00	8.31	8.31	8.12	7.37	7.25	6.87	8.25
six months	9.75	10.06	9.00	8.50	8.19	8.19	7.37	7.44	6.94	8.62
twelve months	10.00	10.44	9.00	8.69	8.56	8.31	7.50	7.62	7.06	8.87
Euro-French franc										
one month	12.13	10.69	12.50	7.38	7.56	10.12	8.81	8.31	8.19	8.12
three months	12.19	10.69	13.00	7.19	8.19	10.37	8.87	8.44	8.25	8.25
six months	12.31	11.00	13.13	7.88	8.37	9.75	8.81	8.44	8.31	8.31
twelve months	12.63	11.38	12.25	7.88	8.37	8.75	8.81	8.44	8.31	8.50
Euromark										
one month	5.25	5.50	4.75	4.44	4.69	5.12	4.00	3.94	3.87	3.81
three months	5.88	5.50	4.75	4.50	4.62	4.87	4.12	4.00	3.87	3.81
six months	6.13	5.56	4.75	4.56	4.69	4.81	4.12	4.00	3.87	3.87
twelve months	6.38	5.56	4.81	4.63	4.69	4.81	4.19	4.12	4.00	4.00
Euro-Dutch guilder										
one month	5.81	5.69	5.75	5.31	5.81	6.31	5.44	5.31	5.31	5.19
three months	6.00	5.75	5.75	5.31	5.69	6.00	5.31	5.31	5.31	5.19
six months	6.25	5.81	5.81	5.31	5.56	5.87	5.19	5.25	5.31	5.19
twelve months	6.38	5.94	5.88	5.31	5.56	5.81	5.19	5.25	5.31	5.19
Euro-Swiss franc										
one month	3.38	4.44	3.88	2.94	3.87	3.94	3.25	4.19	3.25	3.25
three months	3.75	4.56	4.00	3.75	3.87	3.94	3.19	3.94	3.69	3.69
six months	3.94	4.63	4.00	3.75	3.87	3.87	3.31	3.87	3.69	3.69
twelve months	3.94	4.69	4.06	3.81	3.87	3.87	3.62	3.94	3.75	3.81
Eurosterling										
one month	9.13	9.50	11.69	10.81	11.06	11.12	11.06	11.12	10.00	9.44
three months	9.31	9.88	11.81	11.13	11.37	11.12	11.00	10.69	9.81	9.25
six months	9.50	10.00	11.81	11.13	11.37	11.06	10.87	10.37	9.69	9.12
twelve months	9.81	10.19	11.69	11.06	11.37	11.06	10.75	10.31	9.62	9.12
Euroyen										
one month	6.25	6.19	7.13	4.25	4.62	4.56	4.37	4.56	3.94	3.94
three months	6.31	6.19	6.56	4.56	4.50	4.50	4.25	4.25	4.00	3.94
six months	6.38	6.13	6.50	4.56	4.50	4.37	4.12	4.12	4.00	3.87
twelve months	6.44	6.13	6.38	4.56	4.50	4.31	4.06	4.06	4.00	3.94
European currency unit										
one month	8.81	9.25	9.63	7.44	7.56	8.56	7.62	7.44	7.16	6.94
three months	9.19	9.38	9.63	7.56	7.62	8.44	7.56	7.44	7.16	6.94
six months	9.44	9.50	9.63	7.50	7.62	8.06	7.50	7.44	7.16	7.00
twelve months	9.63	9.63	9.63	7.50	7.56	7.31	7.50	7.37	7.19	7.19

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years at or near end of month

	1984	1985	1986					1987		
	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States companies										
Eurodollar	11.25	9.68	8.60	9.04	8.76	8.71	8.67	8.70	8.71	8.78
Euromark	6.95	6.73	6.55	6.73	6.66	6.63	6.62	6.64	6.60	6.56
Swiss franc	5.73	5.49	5.63	5.65	5.67	5.73	5.70	5.67	5.64	5.68
European governments										
Eurodollar	12.04	10.52	9.73	9.92	9.85	9.81	9.91	9.85	10.03	10.08
Euromark	7.39	7.03	6.64	6.63	6.78	6.88	6.77	6.64	6.70	6.50
Swiss franc	5.24	4.91	4.66	4.61	4.57	4.58	4.51	4.40	4.35	4.37
European currency unit	10.64	10.23	10.17	10.23	10.49	10.55	10.20	10.38	10.37	10.26

Central bank discount rates

at or near end of month

	1983	1984	1985	1986	1987				Current	
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May 29 1987	effective since
United States	8.50	8.00	7.50	5.50	5.50	5.50	6.50	5.50	5.50	Aug 21, 86
Canada	9.96	10.09	9.49	8.47	7.49	7.53	7.05	8.33	8.44	May 28, 87
Austria	3.75	4.50	4.00	4.00	3.50	3.50	3.50	3.50	3.50	Jan 23, 87
Belgium	10.00	11.00	9.75	8.00	8.50	8.50	8.00	8.00	7.75	May 20, 87
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.50	9.50	9.00	7.00	7.00	7.00	7.00	7.00	7.00	May 19, 86
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.00	4.50	4.00	3.50	3.00	3.00	3.00	3.00	3.00	Jan 23, 87
Ireland	12.25	14.00	10.25	13.25	13.25	13.25	13.25	12.75	12.75	Apr 16, 87
Italy	17.00	16.50	15.00	12.00	12.00	12.00	11.50	11.50	11.50	Mar 14, 87
Netherlands	5.00	5.00	5.00	4.50	4.50	4.50	4.50	4.50	4.50	Mar 7, 86
Norway	8.00	8.00	8.00	8.00	n.a.	n.a.	n.a.	n.a.	n.a.	Jun 6, 83
Portugal	25.00	25.00	19.00	16.00	15.50	15.50	15.00	15.00	15.00	Mar 23, 87
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.50	9.50	10.50	7.50	7.50	7.50	7.50	7.50	7.50	Sep 19, 86
Switzerland	4.00	4.00	4.00	4.00	3.50	3.50	3.50	3.50	3.50	Jan 22, 87
United Kingdom	9.00	9.38	11.31	10.81	10.81	10.81	9.81	9.31	8.88	May 8, 87
Japan	5.00	5.00	5.00	3.00	3.00	2.50	2.50	2.50	2.50	Feb 23, 87
New Zealand	7.50	13.50	19.80	24.60	24.30	25.80	28.20	n.a.	28.20	Mar, 87
South Africa	18.50	21.75	13.50	10.00	10.00	10.00	10.00	10.00	10.00	Dec 10, 86
*Argentina**	15.10	18.19	5.00	11.19	11.53	10.76	6.25	9.00	9.00	Apr 30, 87
Korea	5.00	5.00	5.00	7.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 86
Philippines	8.05	12.11	11.50	9.64	n.a.	n.a.	n.a	n.a.	n.a.	Dec, 86
Singapore	7.00	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Jul, 85
Thailand	13.00	12.00	11.00	8.00	8.00	8.00	8.00	8.00	8.00	Sep 1, 86
Venezuela	11.00	11.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	Mar, 85

*Percent per month.

Day-to-day money rates

monthly averages

	1983	1984	1985	1986				1987			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	9.47	8.38	8.27	5.92	5.84	5.64	6.71	6.43	5.45	6.13	6.37
Canada	8.78	10.50	9.23	8.10	8.38	8.28	8.28	8.03	7.22	7.16	7.10
Austria	5.75	7.63	7.25	5.50	5.37	5.00	7.62	4.25	4.25	4.12	4.25
Belgium	7.39	9.12	6.60	5.76	6.26	5.81	5.09	7.75	6.90	6.22	6.28
Finland	16.70	15.07	11.96	13.86	11.93	11.80	11.97	11.99	11.76	11.44	11.14
France	12.27	10.95	9.01	7.08	7.31	7.28	7.28	8.80	8.38	7.80	8.03
Germany	5.61	5.62	4.64	4.39	4.41	4.45	5.00	4.24	3.84	3.87	3.74
Ireland	12.19	14.50	9.62	9.63	11.00	13.13	13.00	13.36	13.94	13.75	n.a.
Italy	17.88	17.25	14.75	11.25	10.98	9.67	11.42	11.88	11.81	11.22	10.56
Netherlands	5.84	5.60	5.75	5.31	5.38	5.60	6.19	6.20	5.31	5.56	5.19
Norway	12.30	12.50	12.40	14.00	14.00	14.00	14.00	n.a.	n.a.	n.a.	n.a.
Spain	16.98	12.18	9.92	11.58	11.68	11.69	11.76	12.21	12.47	14.43	17.32
Sweden	11.52	11.88	11.83	8.92	8.51	8.64	8.89	9.09	12.00	12.00	10.00
Switzerland	1.88	1.50	2.00	2.00	1.00	1.00	1.12	1.00	1.00	1.00	1.75
United Kingdom	7.78	6.31	9.72	8.06	11.19	10.62	9.19	11.06	10.88	10.30	9.61
Australia	4.55	10.98	18.37	17.22	17.13	16.21	15.40	15.73	16.22	16.14	14.50
Japan	6.44	6.41	8.02	4.63	4.41	3.77	4.18	4.09	4.05	3.86	3.48
South Africa	16.06	21.13	12.50	9.63	9.63	8.87	8.50	9.00	8.50	8.37	8.31
*Argentina**	14.65	17.75	4.50	6.00	7.00	7.00	7.00	7.00	4.00	5.32	5.50
Brazil	184.69	272.02	352.23	45.56	44.24	55.55	83.05	270.00	412.00	408.00	853.00
Hong Kong	13.90	6.80	6.10	4.93	3.21	4.15	3.90	2.78	1.97	3.76	4.11
Korea	11.40	10.00	8.80	9.50	9.30	9.30	9.00	8.50	8.60	8.80	8.40
Philippines	31.18	15.22	15.03	11.72	8.42	7.98	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	7.05	6.01	4.53	2.26	2.47	2.62	3.51	3.10	3.22	2.24	3.31
Taiwan	7.65	8.07	4.50	3.50	3.50	3.60	3.00	3.25	3.25	3.10	3.50

*Percent per month.

Treasury bill rates

bond equivalent yields, at or near end of month

	1983	1984	1985	1986				1987			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	9.28	7.99	7.25	5.30	5.25	5.44	5.73	5.66	5.49	5.76	5.61
Canada	9.71	9.84	9.24	8.35	8.30	8.24	8.22	7.24	7.28	6.80	8.08
Belgium	11.00	10.90	9.89	7.45	7.48	7.45	7.50	7.99	7.86	7.50	7.35
Ireland	12.01	15.10	11.15	10.61	13.79	14.22	13.60	13.91	13.67	13.51	n.a.
Italy	16.29	14.19	12.70	10.34	10.13	10.00	10.00	9.94	9.74	9.66	9.60
Netherlands	5.63	5.88	5.69	5.63	5.38	5.81	6.37	5.94	5.88	5.44	5.31
Spain	14.46	12.00	9.25	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Sweden	11.75	11.83	12.49	8.66	8.44	9.05	9.20	10.25	10.80	10.31	9.25
United Kingdom	9.04	9.33	11.49	9.93	10.85	10.96	10.75	10.56	10.47	9.54	9.39
Australia	8.54	12.27	19.40	17.51	16.18	15.49	14.91	16.64	16.32	15.47	14.00
Japan	4.91	4.91	4.91	3.39	3.39	2.89	2.89	2.89	2.89	2.38	2.38
New Zealand	7.80	13.50	17.62	15.36	16.00	16.44	19.69	22.36	25.38	24.70	25.29
South Africa	18.43	21.94	12.99	9.20	9.17	8.62	8.84	8.77	8.78	8.26	8.60
Brazil	179.15	273.03	379.77	42.00	45.00	33.00	149.00	276.40	n.t.	n.t.	n.t.
Mexico	53.78	48.67	72.98	n.t.	n.t.	103.77	104.03	104.64	104.83	100.66	99.01
Philippines	15.99	47.14	16.45	12.75	12.58	11.32	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	2.59	2.91	2.94	2.01	1.99	1.93	2.10	2.19	1.67	1.93	2.12

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1983	1984	1985	1986				1987			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	9.89	8.34	8.01	5.96	6.99	5.96	8.04	6.97	6.24	6.70	6.98
Canada	9.87	10.10	9.45	8.50	8.50	8.35	8.20	7.55	7.45	7.05	8.30
Belgium	11.15	10.85	9.89	7.35	7.50	7.50	7.60	7.86	7.81	7.50	7.40
France	12.19	10.69	9.12	7.43	7.50	7.60	8.37	8.50	8.25	7.87	8.00
Germany	6.30	5.75	4.80	4.40	4.60	4.65	4.85	3.90	3.85	3.85	3.80
Ireland	12.19	15.13	12.00	11.25	14.00	14.44	14.06	14.12	14.25	13.37	n.a.
Italy	17.88	16.88	15.13	10.62	11.00	11.12	11.37	11.37	11.12	10.12	10.00
Netherlands	6.00	5.75	5.75	5.44	5.44	5.81	6.19	5.44	5.50	5.55	5.31
Portugal	24.11	24.57	20.71	15.96	15.96	15.93	16.07	14.95	14.94	14.96	n.a.
Spain	19.00	12.21	10.51	11.53	11.41	11.52	11.79	12.35	12.60	14.60	17.09
Switzerland	3.88	5.00	4.75	4.25	4.19	4.00	4.50	3.75	4.00	3.87	3.75
United Kingdom	9.31	9.88	12.75	10.38	11.12	11.44	11.25	11.12	10.19	10.06	9.25
Australia	9.05	12.90	19.75	17.85	16.45	15.90	15.10	16.40	16.60	16.27	14.52
Japan	6.45	6.33	7.03	4.75	4.54	4.43	4.34	4.22	3.96	3.98	3.89
New Zealand	11.75	15.00	20.00	16.50	16.50	16.50	24.25	23.60	25.15	25.60	25.70
South Africa	19.12	22.78	13.35	9.55	9.65	8.90	8.55	9.20	9.05	8.40	9.10
Chile	20.68	20.68	22.42	12.68	20.98	20.98	19.56	25.34	25.34	23.87	22.42
Hong Kong	14.88	8.25	6.50	5.25	4.38	4.44	4.62	3.44	4.37	4.87	5.50
Indonesia	19.50	19.00	15.00	14.50	14.25	14.50	19.50	16.50	16.00	17.00	16.50
Korea	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Malaysia	9.80	10.30	8.20	12.00	9.50	6.70	6.00	5.30	3.30	2.60	2.70
Philippines	15.61	33.21	14.61	9.89	11.19	10.31	8.31	8.34	n.a.	n.a.	n.a.
Singapore	8.44	7.00	5.88	3.25	2.94	3.19	3.94	3.34	3.31	3.26	3.73
Taiwan	8.07	7.85	4.10	2.65	2.65	2.86	n.a.	n.a.	n.a.	n.a.	n.a.
Thailand	16.00	12.00	15.50	7.50	7.50	7.75	7.75	7.75	7.75	7.75	7.75

Commercial bank deposit rates

at or near end of month

	1983	1984	1985	1986				1987			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	9.70	8.35	7.75	5.80	5.75	5.78	6.30	6.00	6.13	6.30	6.80
Canada	9.82	10.05	9.40	8.45	8.45	8.30	8.15	7.50	7.40	7.00	8.25
Austria	6.50	7.50	6.50	5.75	5.62	5.37	5.50	5.12	4.75	4.50	4.37
Belgium	11.25	10.63	9.63	7.25	7.31	7.37	7.44	7.75	7.69	7.37	7.19
Denmark	6.00	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Finland	5.25	5.25	4.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
France	7.66	7.04	6.12	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Germany	5.90	5.25	4.40	4.40	4.50	4.60	4.80	4.70	3.90	3.95	3.95
Ireland	11.75	14.63	11.87	10.50	12.00	14.12	13.75	14.00	14.00	13.25	n.a.
Italy	13.25	11.64	11.85	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Netherlands	6.13	5.69	5.81	5.31	5.31	5.69	6.06	5.31	5.37	5.37	5.25
Norway	12.75	12.75	12.00	13.00	13.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	21.50	28.00	20.00	15.50	15.00	15.00	15.00	15.00	15.00	14.50	n.a.
Spain	12.62	11.64	9.64	8.78	8.78	8.65	8.67	8.54	8.57	8.58	n.a.
Sweden	11.70	11.45	12.18	9.27	8.83	9.85	9.93	10.30	11.00	10.75	9.75
Switzerland	3.50	4.50	4.50	4.00	3.94	3.75	4.25	3.50	3.75	3.62	3.50
United Kingdom	9.31	9.88	11.75	10.37	11.13	11.25	11.19	11.00	10.59	9.84	9.25
Australia	10.40	12.75	18.80	17.82	16.71	15.73	15.56	15.73	16.62	16.19	15.00
Japan	6.40	6.38	7.05	4.95	4.63	4.65	4.55	4.16	4.17	4.20	4.11
New Zealand	11.75	15.25	19.98	15.50	16.60	19.00	23.50	22.72	23.70	23.30	23.85
South Africa	20.13	22.88	13.20	9.50	9.75	9.25	8.65	9.50	9.25	8.75	9.15
Argentina*	14.50	31.23	5.40	6.94	7.65	7.97	8.41	8.81	4.43	4.86	7.17
Brazil**	23.00	27.00	18.00	44.00	49.00	85.00	220.00	400.00	32.00	30.00	24.00
Chile	20.57	20.68	23.60	16.49	20.70	20.27	20.98	26.97	27.42	24.31	25.93
Hong Kong	14.88	8.25	6.50	5.25	4.38	4.44	4.62	3.44	4.37	4.77	5.50
Korea	7.60	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Malaysia	7.75	9.58	7.00	7.00	7.00	6.42	6.33	4.83	4.66	2.33	2.43
Mexico	57.15	47.45	72.90	94.30	94.30	94.30	94.30	94.30	94.30	94.30	94.30
Philippines	14.96	31.01	12.34	9.77	9.35	9.55	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	7.44	6.13	5.26	3.19	2.88	3.13	3.63	3.19	3.32	3.32	3.63
Taiwan	7.00	6.50	5.25	4.50	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Thailand	10.00	13.00	10.50	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75
Venezuela	12.00	12.50	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00

*Percent per month.

**Spread above monetary correction until Feb 86; nominal rate of interest until Jan 87; spread above LBC rate thereafter.

Domestic government bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986				1987			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	12.00	11.61	9.49	7.95	7.81	7.69	7.79	7.17	7.62	7.90	8.51
Canada	12.02	11.66	10.04	9.44	9.53	9.26	9.23	8.94	9.10	8.98	9.82
Austria	8.02	8.04	7.61	7.06	7.25	7.36	7.33	7.25	7.05	6.93	6.86
Belgium	11.89	11.56	9.60	7.36	7.31	7.41	7.70	7.57	7.57	7.64	7.66
Denmark	12.96	14.60	9.67	11.11	11.16	11.80	11.70	11.33	12.63	12.23	n.a.
Finland	11.16	10.73	10.58	7.75	7.90	7.74	7.80	7.78	7.82	7.89	7.77
France	13.96	12.70	11.33	8.51	8.97	9.49	9.89	9.54	9.84	9.42	9.51
Germany	8.38	7.17	6.57	6.26	6.44	6.33	6.25	6.20	6.26	6.12	5.98
Ireland	14.25	14.90	11.84	12.46	13.65	13.49	13.97	12.97	11.16	12.41	n.a.
Italy	17.69	14.52	13.66	10.42	10.25	10.33	10.05	9.78	9.84	10.03	10.08
Netherlands	8.58	7.72	6.96	6.04	6.22	6.30	6.40	6.21	6.15	6.22	6.12
Norway	12.50	12.00	13.10	13.40	13.40	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	22.11	22.23	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	17.25	13.93	12.30	11.10	10.15	10.29	10.36	10.74	10.59	10.95	12.04
Sweden	12.30	12.04	12.11	9.49	9.31	10.35	10.66	11.70	11.23	10.70	11.07
Switzerland	4.53	4.60	4.42	4.17	4.09	4.07	4.05	3.93	4.01	4.11	4.12
United Kingdom	9.94	10.25	10.35	10.31	10.40	10.58	10.17	10.64	9.51	9.15	8.87
Australia	13.65	13.50	14.85	13.85	13.60	13.60	13.40	13.80	14.00	13.45	13.05
Japan	6.94	6.30	5.82	5.00	4.65	4.73	4.61	4.25	3.96	3.72	3.42
New Zealand	10.50	16.90	17.00	15.35	15.18	16.00	15.85	16.20	16.80	16.20	15.85
South Africa	13.64	16.55	18.09	15.24	15.83	14.13	15.06	15.33	15.30	14.66	15.30
Philippines	14.47	18.54	n.t.	n.t.	n.t.	n.t.	n.a.	n.a.	n.a.	n.a.	n.a.
Venezuela	13.50	14.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

Commercial bank lending rates to prime borrowers

at or near end of month

	1983	1984	1985	1986				1987			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	11.00	10.75	9.50	7.50	7.50	7.50	7.50	7.50	7.50	7.60	7.75
Canada	11.00	11.25	10.00	9.75	9.75	9.75	9.75	9.25	9.25	8.75	9.25
Austria	9.25	9.25	9.00	9.00	9.00	9.00	9.00	9.00	8.75	8.75	8.75
Belgium	13.75	14.00	11.50	9.75	9.75	9.75	9.75	10.75	10.25	9.75	9.75
Denmark	10.00	10.50	8.50	8.00	8.00	8.00	8.00	9.50	10.00	10.00	10.00
Finland	10.18	10.68	10.37	8.77	8.75	8.74	8.81	8.81	8.80	8.64	n.a.
France	12.25	12.00	10.60	9.45	9.45	9.45	9.45	9.45	9.45	9.45	9.45
Germany	7.75	7.75	7.25	6.75	6.75	6.75	6.75	6.75	6.25	6.25	6.25
Ireland	13.75	15.75	12.50	12.25	15.75	15.75	15.75	15.75	15.75	15.75	n.a.
Italy	18.75	18.00	15.88	13.00	13.00	13.00	13.00	13.00	13.00	12.50	12.50
Netherlands	7.00	6.25	6.25	5.88	5.88	6.12	7.12	6.12	5.75	5.87	5.75
Norway	13.50	13.00	12.40	15.75	15.88	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	30.00	29.00	22.50	18.00	17.50	17.50	17.50	17.50	17.50	19.50	n.a.
Spain	17.31	15.84	14.75	14.29	14.25	14.23	14.22	14.24	14.24	14.57	15.23
Sweden	13.50	14.50	15.05	11.50	11.50	11.50	11.50	11.50	11.50	11.60	11.60
Switzerland	6.00	6.00	6.00	5.75	5.75	5.75	5.75	5.25	5.25	5.25	5.00
United Kingdom	9.00	9.50	11.50	10.00	11.00	11.00	11.00	11.00	11.00	10.00	9.50
Australia	12.75	14.00	21.00	19.00	19.00	18.50	18.25	18.00	18.25	18.25	17.60
Japan	5.89	5.70	5.71	4.48	4.48	4.45	4.35	4.28	4.24	n.a.	n.a.
New Zealand	11.00	14.00	21.00	17.00	18.50	18.50	18.50	24.00	25.00	27.00	29.00
South Africa	20.00	24.00	16.50	13.50	13.50	13.50	12.00	12.50	12.50	12.50	12.50
Argentina*	15.50	32.05	7.30	8.62	8.70	8.85	11.30	9.85	5.45	5.71	9.20
Brazil**	24.00	31.00	19.00	46.00	51.00	88.00	250.00	440.00	45.00	40.00	37.00
Chile	30.90	60.82	33.34	23.51	27.20	29.13	29.13	33.57	36.07	34.48	36.07
Hong Kong	13.50	11.00	7.00	6.50	6.50	6.50	6.50	5.00	5.00	6.00	6.50
Indonesia	19.75	23.50	18.75	18.75	18.25	18.25	19.75	20.50	19.50	19.50	19.25
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Malaysia	11.00	12.00	10.50	10.50	10.50	10.50	10.00	9.00	9.00	9.00	8.50
Mexico	56.44	47.54	65.66	87.72	91.48	94.19	95.33	95.89	96.20	96.25	95.79
Philippines	18.00	44.00	15.00	13.00	12.00	11.00	10.00	n.a.	n.a.	n.a.	n.a.
Singapore	8.98	9.40	7.20	6.45	6.28	6.10	6.10	6.10	6.10	6.10	6.10
Taiwan	10.25	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Thailand	16.00	16.50	15.50	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
Venezuela	16.00	16.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00

*Percent per month.

**Spread above monetary correction until Feb 86; nominal rate of interest until Jan 87; spread above LBC rate thereafter.

Domestic corporate bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986				1987			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	12.63	12.25	10.15	9.00	9.00	8.88	8.88	8.50	8.55	8.65	9.60
Canada	12.89	12.42	10.74	10.32	10.39	10.21	10.18	9.67	9.90	9.79	10.28
France	14.35	12.94	11.76	8.92	9.36	9.77	10.18	9.92	10.06	9.79	9.72
Germany	8.30	7.20	6.90	6.30	6.40	6.60	6.50	6.50	6.40	6.60	6.50
Netherlands	8.51	7.51	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Norway	13.25	12.75	14.00	15.50	15.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	20.07	18.32	14.92	13.38	13.24	13.61	13.40	13.72	14.13	14.82	15.36
Sweden	12.21	12.33	13.25	10.82	10.77	11.72	11.99	13.00	12.63	12.16	12.16
Switzerland	4.92	5.09	4.93	4.77	4.73	4.71	4.72	4.62	4.56	4.58	4.57
United Kingdom	11.57	11.64	11.47	10.34	11.58	11.43	11.71	11.30	10.58	10.21	10.09
Japan	7.49	7.11	6.79	6.10	6.18	6.05	5.93	5.46	5.35	5.20	n.a.
Korea	14.20	15.00	13.60	12.80	12.80	12.70	12.80	12.80	12.70	12.80	12.80
Venezuela	18.00	18.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00

7/24/87 B6200-2

World Financial Markets

Morgan Guaranty Trust Company of New York

June/July 1987

LDC debt realities, 1
- Bank lending and capital, 2
- The debtors' export and financial transfer predicament, 4
- Two dead ends and their cooperative implication, 5
- Debtor policy reforms, 6
- Official financing, 8
- The banks' cafeteria, 10

Debt-equity swaps, 12

Statistical appendix, 15

Table 1

Ten major debtor countries*

billions of dollars unless otherwise indicated

	Annual averages			
	1981-1982	*1983-1985*	*1986*	*1987*
Real GDP growth (%)	—0.2	0.6	2.7	2.0
Exports of goods and services	130	123	104	109
Current account balance	—45	—3	—13	—14
*Capital flight***	—26	—11	2	n.a.
Interest-to-export ratio (%)	29	32	32	30
Debt-to-export ratio (%)	246	302	385	385

*Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Nigeria, Peru, Philippines, and Venezuela.

**Minus sign indicates net outflow.

LDC debt realities

The decisions of numerous banks in the United States and elsewhere to boost their loan loss reserves—plus the announcement by some of their intention, one way or another, to dispose of a portion of their existing LDC loans — have precipitated fresh questioning of the LDC debt strategy, in particular, of the Baker initiative. The banks' decisions, taken amid open reappraisals of the debt situation, have launched a new chapter in a long-running saga.

The October 1985 initiative by U.S. Treasury Secretary Baker called on 15 principal middle-income debtor LDCs (the "Baker countries") to undertake growth-oriented structural reforms, to be supported by increased financing from the World Bank and continued modest lending from commercial banks against an industrial-country backdrop of satisfactory economic growth and markets open to LDC exports. The underlying goals were to restore access to international capital markets for these LDCs and buttress their economic growth.

Nearly two years later, achievement stands some way short of these commendable objectives. Most of the Baker countries have lagged in policy delivery and economic performance (see Table 1). They are finding it hard to achieve sustained economic growth (see Table 2), especially in per capita terms. For example, oil-exporting countries were hard hit by last year's fall in oil prices and Brazil's strong growth in 1985-86 has come to a halt. Likewise, the Baker countries scored very substantial current account improvements during the first years of the debt strategy (see Table 3). But for ten of the largest debtors, the combined current account reverted to a deficit of $13 billion in 1986, with a similar outcome likely this year.

Despite an increase in World Bank activity, overall official financing to the Baker countries has dropped off, because of cutbacks by the regional development banks and net repayments to the IMF. Moreover, despite new money packages, claims of BIS-reporting commercial banks on the Baker countries declined nearly $3 billion last year. Worst of all, industrial-country real GDP growth, which has been sagging three years in a row, may be no better than 2.3% in 1987. This sluggish growth, plus the increase in protectionism that is its by-product, makes LDC export expansion difficult. There is little reason for confidence that any of these adverse

Table 2

Real GDP growth

percent

	1983	*1984*	*1985*	*1986*
Argentina	3.3	2.4	—4.5	5.7
Brazil	—2.5	5.7	8.3	8.2
Chile	—0.7	6.3	2.4	5.7
Colombia	1.6	3.4	2.4	5.3
Ecuador	—2.8	4.0	3.8	1.7
Mexico	—5.3	3.7	2.8	—3.8
Nigeria	—8.5	—5.5	2.4	—4.0
Peru	—12.0	4.7	1.6	8.5
Philippines	1.1	—6.8	—3.8	0.1
Venezuela	—5.6	—1.4	0.3	3.0
Total	—3.3	2.1	3.0	2.7

Table 3

Current account balances

billions of dollars

	Annual averages			
	1981-1982	*1984-1985*	*1986*	*1987*
Argentina	—3.5	—1.7	—2.6	—2.8
Brazil	—14.0	—0.1	—4.5	—5.1
Chile	—3.5	—1.7	—1.1	—0.9
Colombia	—2.5	—1.8	0.1	—1.3
Ecuador	—1.1	—0.2	—0.7	—1.1
Mexico	—9.4	2.7	—1.3	1.0
Nigeria	—6.8	0.7	—1.7	—2.2
Peru	—1.7	—0.1	—1.1	—1.2
Philippines	—2.7	—0.6	1.1	0.3
Venezuela	—0.1	4.3	—1.6	—0.3
Total	—45.3	1.5	—13.4	—13.6

trends will soon shift in the debtor countries' favor. It follows that improvement of their export performance, reduction of their very high external debt-to-export ratios, and alleviation of their financial burdens will be a long drawn-out affair.

This recognition has dimmed assessments of the debtors' prospects. Now, following the loss-reserve actions by the banks, the quest to restore the debtors' creditworthiness is entering uncharted waters. Even so, given political will in both the debtor countries and the industrial powers, positive progress still can be made. After all, expert opinion is substantially of one voice on the necessary ingredients. These are those outlined in the Baker initiative. In other words, the logic of the initiative stands intact. It is its implementation that needs improvement.

In a difficult world environment, realism demands that LDC debtors — and, for that matter, the United States in relation to its trade deficit — come to terms with their need to rely more on self-help. The most successful economies, such as Korea, demonstrate the importance of aligning domestic incentives with world market conditions. Like it or not, nations must make their way in an increasingly competitive world economy that puts a premium on self-help and has little time for the inefficiency and pretension of cobwebbed statism as the road to economic success — a recognition dawning in even the most socialist countries of Europe and Asia. Public sectors have to be placed on an efficient, market-responsive footing, frequently best accomplished by privatizing major activities. Private sectors have to be galvanized by deregulation and their capitalization strengthened by equity infusion, including debt-equity swaps that widen private investment opportunities and attract investment from abroad.

The debtors further should make maximum use of the external financial and advisory resources that are most available — from such official institutions as the IMF, the World Bank, and the International Finance Corporation (the IFC, the Bank's affiliate sponsoring private investment). In turn, these official bodies, and their controlling industrial-country governments, should recognize that the roughly 50-50 split between private and official funds typical of many past new money packages for the debtor countries may not be a workable norm for the future, nor is indefinite reliance on "involuntary" lending by banks. Realism demands an increased share of new money be furnished by official sources during the next several years.

In the wake of Brazil's debt-service moratorium, the banks are rightly stepping up the priority some have long attached to strengthening their primary and equity capital, a process that their loss-reserve actions are sure to accelerate. Still, the major banks generally see their interest in staying involved with the major debtors, whatever the future of their involvement with the smaller ones. Living in the marketplace, as they must, banks have to respond to its pressures, not merely fall in with official pleadings for more involuntary money on unappealing terms. It follows that the banks must be permitted a broader range of options from which to choose debtor financing devices that best suit the market imperatives facing banks, both individually and collectively.

Bank lending and capital

Ever since the debt crisis broke in the fall of 1982, banks have been keen to reduce their LDC claims-to-capital ratios. For example, claims of the nine U.S. money center banks

Table 4

U.S. banks' claims-to-capital ratios

	9 money center banks	*14 regional banks*
*Claims on the 15 Baker-initiative countries ($ billions)**		
End-1982	57.1	16.7
End-1986	56.6	14.1
*Primary capital ($ billions)***		
End-1982	29.0	13.5
End-1986	46.7	22.0
Changes from 1982 to 1986 (average % per annum)		
Claims	—0.2	—4.2
Primary capital	12.6	13.0
Claims-to-capital ratio (%)		
End-1982	197	124
End-1986	121	64
*End-1990 scenarios****		
Unchanged claims	73	41
5% per annum decline in claims	63	33

*Cross-border and foreign office non-local-currency claims on a risk-adjusted basis.
**Stockholders' equity, reserves for loan losses, and certain subordinated debentures.
***Assuming 12% per annum increase in primary capital.

on the Baker countries declined from nearly 200% of their total primary capital at the end of 1982 to just over 120% at the end of 1986 (see Table 4). The level of their claims was virtually unchanged, while the banks' primary capital, consisting of loan loss reserves, equity capital, and certain subordinated debt, increased at an average 12.6% annually. Fourteen U.S. regional banks reduced their claims-to-capital ratio by almost half, from 124% at the end of 1982 to 64% at the end of last year. Not only did the regional banks boost their primary capital more rapidly, but also they reduced their total claims on the Baker countries by an average of 4.2% per annum.*

The recent wave of reserving attests that banks typically view their LDC claims-to-capital ratios as still uncomfortably high in light of current assessments of the debtors' prospects. Banks can reduce their ratios further by increasing their capital and containing or reducing their outstanding loans. Banks boost primary capital by increasing provisions for loan losses out of future retained earnings or increasing stockholders' equity. It should be noted that, by themselves, the recent loss-reserve increases by many U.S. banks did not lift primary capital, except to the extent that related actions reduce tax liabilities. In the main they simply shifted primary capital from one category (shareholders' equity) to another (loan loss reserves). However, this shift could assume greater significance if U.S. regulators join the Bank of England in attaching increased weight to equity (plus unallocated reserves) in determining bank capital adequacy.

Banks lessen the total of LDC loans on their books if they more than offset new loans by reductions in existing loans. In 1986, BIS-reporting banks reduced their exposure to the Baker countries (see Table 5), their new money disbursements of approximately $3 billion being more than offset by repayments of existing loans and decreases in balance-sheet outstandings incident to loan charge-offs and sales and transfers to nonbanks, such as official export credit and other guaranteeing agencies. Much stress currently is being laid on debt-equity swaps as a technique to strengthen bank balance sheets. Of course, equity conversions leave equity interests which, unless disposed of, do not reduce exposure. But if loans or equity are sold, swapped, or charged off, banks do reduce their exposure and thereby their exposure-to-capital ratios. A number of banks therefore plan to step up loan disposals. But any losses incurred use up the banks' loan loss reserves and reduce their primary capital.

A U.S. bank strategy of capital buildup and claims reduction can be exemplified as follows. Suppose that the nine money center banks, maintaining the pace of recent years, add 12% annually to their primary capital in the years ahead. Suppose further that they trim their claims on the Baker countries 5% annually, as the principal regional banks came close to doing over the past four years. Then, by end-1990, the money center banks would see their claims-to-capital ratio down to 63% — roughly today's figure for the regional banks — and, on parallel assumptions, the regional banks' ratio would be down to 33%.

---

*Banks headquartered outside the United States generally are thought to have cut their relative exposures substantially, although comparable data are not available to confirm this. Dollar depreciation, by reducing the home-currency values of dollar-denominated loans to LDCs, has contributed significantly to reductions in the relative exposure levels of European and Japanese banks since the end of 1984. For example, although U.K. banks' claims on the Baker countries increased slightly between end-1984 and end-1986 in dollar terms, they declined by more than 20% in sterling terms. Similarly, German banks' claims on the Baker countries dropped by 16% in mark terms (the drop would have been larger were not many of the claims mark-denominated).

Table 5

Commercial banks' claims on the 15 Baker-initiative countries

billions of dollars

	*Net lending**			*Claims outstanding end-1986*
	Annual average 1983-84	*1985*	*1986*	
Argentina	0.2	2.2	1.6	33.0
Brazil	4.1	—1.7	—0.0	77.9
Chile	0.6	0.4	—0.7	13.9
Colombia	0.0	—0.7	—0.0	6.8
Ecuador	0.0	0.2	0.1	5.8
Mexico	2.5	0.8	—1.5	77.3
Nigeria	0.3	0.1	0.2	11.0
Peru	—0.5	—0.2	—0.6	6.8
Philippines	0.0	—0.7	0.3	15.4
Venezuela	—1.7	0.4	—1.4	29.3
Subtotal	5.5	0.8	—2.0	277.2
*5 other LDCs***	—0.2	0.0	—0.8	24.0
Total for 15	5.3	0.8	—2.8	301.2

*Changes in outstanding claims of BIS-reporting banks adjusted to exclude the estimated effects of exchange rate changes. Data include effects of loan charge-offs, sales, conversions, and transfers to official export credit agencies as insurers or guarantors.

**Bolivia, Ivory Coast, Morocco, Uruguay, and Yugoslavia.

Table 6

External debt-to-export ratios

average gross external debt as percent of exports of goods, services, and private transfers

	1982	*1984*	*1986*	*1987*
Argentina	405	461	536	554
Brazil	339	322	425	471
Chile	333	402	402	370
Colombia	191	254	198	235
Ecuador	239	259	333	464
Mexico	299	292	413	366
Nigeria	84	158	300	310
Peru	269	356	497	551
Philippines	269	309	308	309
Venezuela	84	158	322	278
Total	264	290	385	385

Should today's pessimistic climate persist indefinitely, banks would continue trying to cut their ratios further; of course, this might not be necessary should conditions improve significantly. The precise levels of the ratios that bank managements might judge appropriate undoubtedly would vary from bank to bank, depending not only on evaluations of each debtor's creditworthiness, but also on the country composition of the bank's loan portfolio.

The debtors' export and financial transfer predicament

Particularly disappointing to both debtors and creditors has been the continued deterioration of the external debt-to-export ratios of almost all the problem countries, including Argentina, Brazil, and Mexico. Despite a dramatic slowing of the growth of their debt, the average ratio to exports for the ten principal Baker countries rose from less than 265% in 1982 to 385% in 1986. The average will remain close to that level in 1987, despite improvements in Chile and Venezuela (see Table 6). Similarly, even with declines in applicable interest rates and lending spreads, the average ratio for the ten of scheduled interest payments to exports remained above 30% throughout the 1982-86 period. The average will stand little lower in 1987, although Argentina and Mexico, like Chile and Venezuela, should see reduced interest burdens (see Table 7).

The principal hindrance to broad-ranging improvement in these key ratios has been the succession of setbacks befalling LDCs in their efforts to increase export earnings. Most major debtors have boosted the volume of their exports substantially since 1982. However, terms of trade losses have erased earnings gains in dollar terms (see Table 8), not only for oil exporters but also for Argentina, whose exports are heavily concentrated in beef and cereals. In the case of Brazil, for which terms of trade trends have been less of a problem, the export gains achieved through 1985 have been wiped out by subsequent overexpansion of domestic demand. Thus the debtor countries generally have not achieved the export growth that is ultimately fundamental to solving their external financing problems. Unless they can expand their exports at an average rate exceeding the interest rate on their external debt, their chances of reducing debt-to-export ratios from the current very high levels cannot be rated good.

Unfortunately, world economic conditions are less than propitious for LDC export growth. The debtors need access to expanding markets. But the prospects are unpromising for strong, noninflationary growth in their principal industrial-country markets: instead of averaging 3% or more, their real GDP growth has slowed steadily since 1984, and now seems fated to run no better than 2½% annually for some time to come. Moreover, with its huge trade deficit, the United States is hardly in a position to absorb large increases in LDC exports, as it did in 1983-84, while Japan and Europe are reluctant to stimulate and open their economies sufficiently to absorb substantially more imports from either the United States or the debtor countries. Both structural and cyclical demand trends have depressed prices and volume potential for LDC commodity exports. In manufactures, which hold greater potential for LDCs, Japan and Europe combined absorb fewer LDC exports than does the United States alone, even though their combined GDP exceeds that of the United

Table 7

Interest-to-export ratios

scheduled interest payments as percent of exports of goods, services, and private transfers

	1982	1984	1986	1987
Argentina	50	56	47	43
Brazil	53	38	40	39
Chile	44	44	36	28
Colombia	22	25	16	20
Ecuador	30	30	28	36
Mexico	44	35	35	31
Nigeria	8	11	15	14
Peru	24	32	31	35
Philippines	24	29	23	22
Venezuela	18	18	29	22
Total	35	32	32	30

Table 8

Exports of goods, services, and private transfers

billions of dollars

	Annual average 1981-82	1985	1986	1987
Argentina	10.8	10.3	9.1	9.2
Brazil	25.3	29.5	25.4	24.2
Chile	5.4	4.7	5.3	5.8
Colombia	5.2	5.3	7.2	6.4
Ecuador	2.9	3.3	2.6	2.1
Mexico	29.2	30.1	23.9	28.4
Nigeria	16.3	13.0	7.4	7.7
Peru	4.2	3.8	3.2	3.0
Philippines	8.6	8.1	8.9	9.3
Venezuela	22.3	16.9	10.9	12.4
Total	130.2	125.0	103.9	108.5

States by more than 60%. These difficult foreign market conditions make it doubly important for the debtor countries to diversify their exports and improve their competitiveness. Yet without better economic performance by the leading industrial countries, the process of reducing LDC debt-to-export ratios and restoring creditworthiness is destined to be lengthy.

If strong export growth is beyond reach, debtors can in principle contain their debt ratios by compressing imports sufficiently to generate trade surpluses large enough to effect the requisite net financial transfers to their creditors. During 1983-86, such transfers by the ten major debtors averaged 4% of GDP and about 25% of earnings from goods and services exports.* Yet even this high level of transfers, without export growth, failed to reduce debt ratios; and the debtors paid a heavy price in terms of economic growth forgone. This unhappy experience now has heightened the debtor countries' determination to reduce their net financial transfers — by reducing interest payments and increasing net capital inflows — to levels consistent with desired economic growth.

Two dead ends and their cooperative implication

One approach to limiting financial transfers is seen in Peru's unilaterally decreed limit on debt-service payments, in effect since 1985. Emphatically, this is not the right approach. Peru's debt-service limit has ensured practically no new money inflows from banks. Although it pumped up growth to 8% last year, this can hardly be sustained on the basis of a consumption boom fueled by heavy deficit spending, rapid credit expansion, and large real wage increases. Inflation has climbed above 100%. Surging imports have drained the nation's foreign exchange resources. Virtually cut off from credit, some of its external trade now is conducted by barter. Further, Peru has experienced foreign direct investment withdrawals and increased capital flight.

Debt relief likewise is not a sensible way to alleviate burdensome financial transfers. Granted, some of the very poor developing countries, mostly in Africa, for whom private credit markets were never a major source of finance, may merit debt relief and certainly deserve financial support from IDA, the World Bank affiliate for concessional lending. By contrast, the middle-income debtor countries addressed by the Baker initiative are neither very poor nor insolvent. They possess considerable human and natural resources, reasonably well-developed infrastructures and productive capacities, and the potential for substantial growth in output and exports, given sound economic policies and a benign external environment. In addition, some of these countries have considerable wealth — much of it, regrettably, invested abroad. Most of the Baker countries have yet to make sufficient effort to mobilize their own resources and allocate them efficiently. For them, debt relief is at best a shortsighted and ineffectual substitute for sound macroeconomic policy and vigorous structural reform; relief or forgiveness would only weaken discipline over economic policy and under-

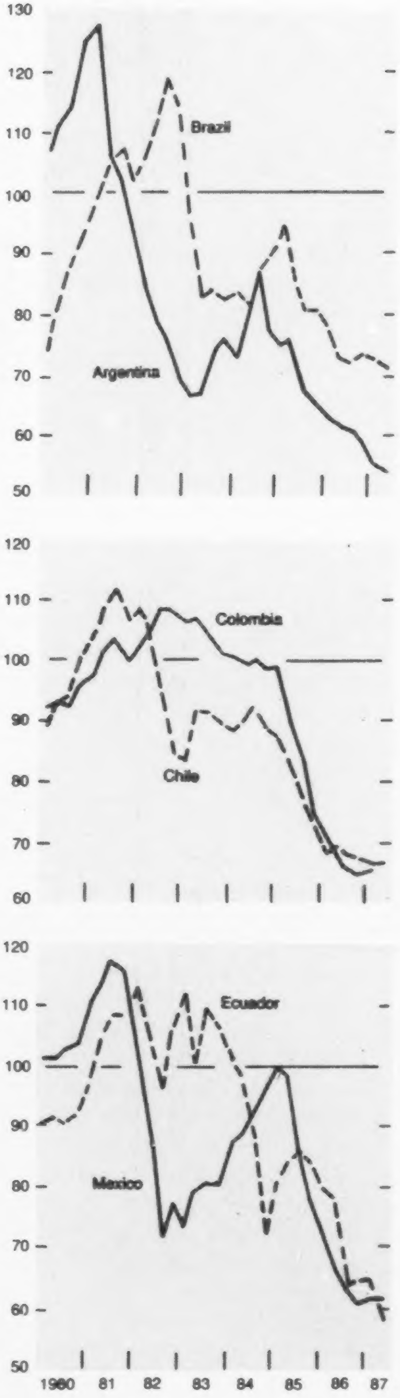
---

*Net financial transfers can be broadly measured as net interest and dividend payments less net capital inflows (the counterpart of the current account deficit). The transfers receded to 2.3% of GDP on average in 1986, partly for what may prove ephemeral reasons. The decrease occurred despite reduced net lending to the ten by foreign creditors, both official and private, instead coming mainly from lower interest payments (reflecting interest rate declines) and drawdown of the debtors' foreign assets, in place of sizable accumulations in the previous two years. The asset drawdown last year included both reductions in official reserves and modest reflows of flight capital. But reserves are exhaustible and it can hardly be said that the flight capital problem has been solved.

Chart 1

Real effective exchange rates

quarterly averages index, 1980-82 = 100



mine support for structural reform.

Besides, it is questionable whether debt forgiveness would significantly diminish net financial transfers by the Baker countries. Most of their term debt, especially the portion owed to banks, has been restructured with extended grace periods and lengthy maturities. Thus, for many years to come the cash flow benefits of principal forgiveness would be limited to the interest savings on the forgiven amount. Moreover, debt forgiveness involving principal or interest would certainly cause banks and others to cease lending and investing, and also provoke outflows of resident capital. The loss of new loans and investments for an indefinite period, plus capital flight, could substantially reduce, if not entirely wipe out, any near-term cash flow gains from debt relief. Besides, for the Baker countries, debt forgiveness would run directly counter to the objective of restoring access to credit markets.

The wise course for the future requires careful reading of the lessons from past mistakes. Even before its elaboration as the Baker initiative, the debt strategy hinged on a combination of steadfast policy improvement on the part of the debtors plus cooperation among the debtors and their creditors, including the industrial-country governments that have principal responsibility for assuring world economic growth. Reform and cooperation remain the right approach.

Debtor policy reforms

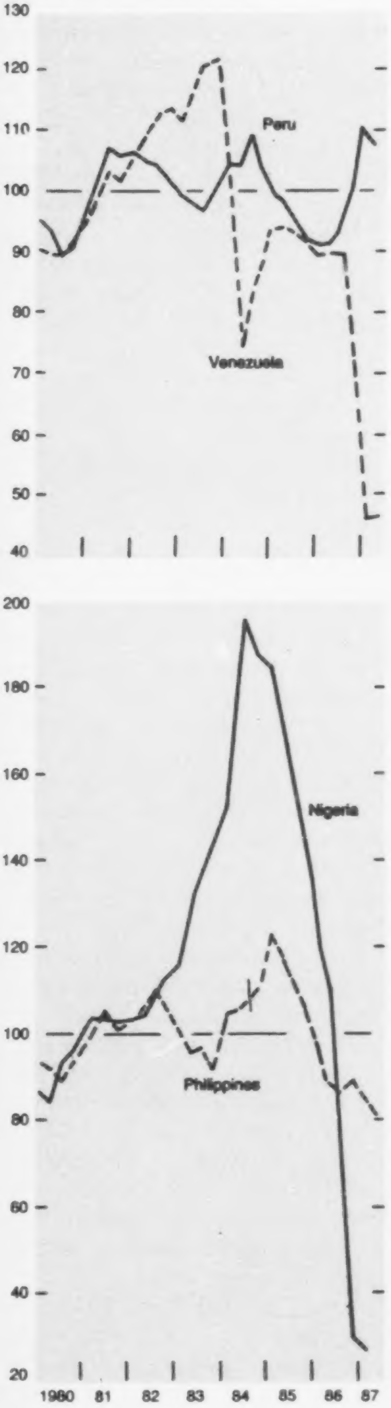
Market-oriented reform of troubled debtors' policies lies at the heart of any credible undertaking to secure their economic and financial rehabilitation. Chile and Colombia have embarked on fairly comprehensive reform programs and, despite natural-disaster and painful terms of trade loss, Mexico has made surprisingly good headway. Argentina has just announced a series of steps intended to improve public-sector management. Yet, in the best of circumstances, structural reform meets formidable political obstacles: labor unions facing job and benefit losses, bureaucrats fearful of diminished power and influence, and local industrialists concerned about increased competition and reduced profitability. All are well aware that the potential benefits of structural reform often are diffuse and materialize only gradually, even beyond the horizon of political leaders.

Progress has been most pronounced in exchange and interest rate policies. In real effective terms, exchange rates of the debtors' currencies are far more competitive than at the onset of the debt crisis (see Chart 1). This has encouraged nontraditional-export development. For example, Mexico's non-oil exports are rising very strongly for the second year in a row and now exceed oil exports by a considerable margin. Strong export performance, aided certainly by firming oil prices, has returned the current account to surplus. In addition, Mexico's more realistic interest rates, its stringent rationing of private-sector credit, and the generally positive thrust of its economic policies — which have inspired a stock-market boom — have induced appreciable reflows of flight capital. Such reflows, plus the current account surplus and disbursements from the new money package, have helped boost Mexico's foreign exchange reserves to some $13 billion, an increase of $7 billion so far this year.

Mexico further has introduced several tax reform measures, has begun to improve the efficiency of various public-sector enterprises, and is administering foreign invest-

Real effective exchange rates

quarterly averages index, 1980-82 = 100



ment regulations more flexibly, particularly for export-oriented ventures. It has launched a debt-equity conversion program that so far has generated nearly $900 million in swaps and helped double private direct investment inflows last year. Further, Mexico is making unexpectedly good headway in trade liberalization, reducing tariff and nontariff import barriers, and improving domestic producers' access to internationally priced inputs.*

The question overhanging the prospects for sustained structural progress in Mexico concerns its stance on demand management. Without competent and consistent demand management, structural reforms stand little chance of taking root and flourishing. An inflation rate of 125% during the latest twelve months highlights Mexico's problem. The problem is yet more graphic in Brazil, where the renewed outbreak of hyperinflation following its demand management debacle effectively forecloses formulation and implementation of constructive structural reforms for the time being.

Not least because of its relatively successful recent record in demand management, Chile evidences the strongest commitment among the major debtors to thoroughgoing structural reforms. Correctly, these aim to expand the scope for private-sector activity and reduce the role of the public sector in the economy, with deregulation, privatization, financial market reform, and already-liberal foreign investment rules as the key instruments of change. Chile has undertaken to revitalize many financial institutions and foster development of an active capital market; privatize a number of major state enterprises considered off-limits elsewhere, such as steel, electricity generation, and telecommunications, in addition to numerous smaller entities; rationalize other public-sector companies; and encourage foreign direct investment, partly through its near-exemplary debt-equity swap scheme (see next article).

Unlike Chile, most of the debtor countries have failed to join the worldwide trend — most conspicuous in Western Europe — toward reducing the economic role of the state and expanding the scope for private enterprise.** To date, privatization in the debtors has consisted mostly of attempts to sell off assorted small commercial firms, often formerly private-sector firms absorbed by the state to avoid layoffs after bankruptcy. Except in Chile, privatizations of major state enterprises have been rare. Of course, substantial preparatory work is necessary before state enterprises can be privatized, especially those with a history of mismanagement and lack of financial discipline. If privatization benefits are to be reaped within the foreseeable future, it is important that preparation be put under way with minimum delay.

Financial market reform also has lagged in the major debtor countries. Development of viable bond and equity markets is inhibited by the overwhelming claims of the public sector on financial savings and by the lack of adequate accounting standards, financial disclosure, and credible regulatory frameworks. Typically, financial markets still are fragmented by interest rate controls, steep reserve requirements, admin-

---

*To these ends, the World Bank is extending financial and technical assistance to Mexico, and also to Argentina, Colombia, and Nigeria among the major debtors. The World Bank further is supporting policy reforms aimed at boosting agricultural production and efficiency in Argentina, Ecuador, and the Philippines — countries whose agricultural export potential has long been undermined by government price regulations, export restrictions and taxes, and monopolistic trading arrangements; these now are being dismantled.

**In the typical debtor country, the public sector holds sway over the economy by regulating prices and marketing practices generally and, in many sectors, operating large state enterprises that are sheltered from market discipline and often require budgetary support and preferential access to credit.

Table 9

Capital flight*

billions of dollars
minus sign indicates net outflow

	1983	*1984*	*1985*	*1986*
Argentina	—0.4	1.1	0.4	0.7
Brazil	—2.2	—3.1	—1.6	—1.0
Chile	0.2	0.3	0.6	0.8
Colombia	—0.5	0.7	—0.8	0.0
Ecuador	—0.7	—0.1	—0.3	—0.2
Mexico	—8.5	—3.9	—2.4	0.9
Nigeria	—2.3	—1.0	—1.2	1.3
Peru	—0.6	—0.7	—0.1	0.4
Philippines	0.0	0.2	—0.4	—1.7
Venezuela	—3.8	—1.7	0.4	0.5
Total	—18.9	—8.3	—5.4	1.7

*Net flows excluding reinvestment of earnings on private-sector residents' overseas assets. Estimates are developed indirectly, see *World Financial Markets*, March 1986. Figures shown above embody additional adjustments to exclude valuation effects of exchange rate changes on debt and asset stocks.

istrative credit allocation, and preferential arrangements for favored sectors such as housing and agriculture. These practices, as do those of the socialist financial systems of Eastern Europe, stifle market forces in resource allocation.

Furthermore, for all but a few of the major debtor LDCs the combination of recently unfavorable economic conditions and a tradition of inhospitable regulation has thinned the ranks of potential foreign investors. In the last few years, net foreign direct investment inflows into the ten major debtors have averaged only about half the scale seen in the late 1970s and early 1980s. Rules on foreign ownership limits and dividend remittances have been eased and administrative procedures simplified in Colombia, Mexico, and Venezuela as well as some of the smaller debtors. Yet the general perception is of only modest liberalization, and regulatory practice still is judged arbitrary by many potential investors.

Moreover, few of the debtors have seen much reflow of flight capital (see Table 9). Where reflows have occurred, as in Mexico this year, they have been modest when measured against the large-scale outflows of the past — especially when it is borne in mind that the foreign assets so acquired are likely to have risen greatly in value through earnings reinvestment and capital appreciation. Evidently, much more must be done by the major debtors generally to create the environment and build the private-sector confidence that will attract larger inflows of foreign investment and encourage return of significant amounts of residents' capital held abroad.

Official financing

On the creditor side, given the market constraints on banks, governments and international institutions will have to meet a large share of the new money needs of the highly indebted LDCs in the years ahead. In 1986, net lending to the Baker countries by government creditors was virtually unchanged from the low level of 1985 (see Table 10), and that by the international organizations dropped to $4½ billion — far short of the $6½-$7 billion annual average envisaged in the Baker initiative. Clearly, the practice will have to change whereby, hitherto, officials generally have provided no more than half the gross new money needs of the debtor countries, including amounts to repay the IMF and multilateral development banks.

It is not easy to reconcile the IMF's negative financing role with the supposedly central role it is called upon to play in the management of debt problems. Without shifts in Fund policy and debtor attitudes toward Fund conditionality, the IMF will receive large net repayments in 1987-88 from the Baker countries, including $2.1 billion from Brazil alone. Yet the Fund's already-ample resources now are being topped up by Japan which, much as did Saudi Arabia in earlier years, is moving to lend the Fund some of the assets accumulated through its current account surplus. Provided debtor countries pursue sound policies, it makes little sense that the Fund routinely curtails the size of programs for countries that are large current users of its credit, even when they have sizable unused borrowing rights and external financing needs. Moreover, if a country's borrowing rights are exhausted yet its financing needs legitimate, the Fund should consider raising its now two-year-old access limits.

The Fund has been reassessing its policy advice and programs in response to allegations of its inattention to debtor growth needs. Sev-

Table 10

Official net lending to the 15 Baker-initiative countries

billions of dollars

	Annual average 1983-84	*1985*	*1986*
Argentina	1.2	1.2	0.7
Brazil	4.3	1.2	—0.1
Chile	0.6	0.4	0.1
Colombia	0.6	0.9	0.7
Ecuador	0.5	0.4	0.4
Mexico	1.3	1.5	2.3
Nigeria	1.4	0.6	1.8
Peru	0.7	0.3	0.3
Philippines	1.0	0.9	0.6
Venezuela	—0.3	—0.4	—0.2
Subtotal	11.2	6.8	6.6
*5 other LDCs**	2.6	0.6	—0.1
Total for 15	13.8	7.4	6.5
Of which			
IMF	4.8	1.7	—0.1
Multilateral development banks	3.8	3.6	4.4
World Bank	2.1	2.4	3.4
Others	1.1	1.3	1.0
Bilateral government	5.2	2.1	2.1

*Bolivia, Ivory Coast, Morocco, Uruguay, and Yugoslavia.

eral recent programs include growth as a specific objective or provide for review of policy targets in light of economic trends. The Fund, working with the World Bank more closely than in the past, is putting increased stress on structural reforms. IMF advice may be particularly useful respecting the much-needed liberalization of the debtors' domestic financial markets. Prompt progress in implementing structural reforms now is accepted by the Fund as justifying flexibility in other aspects of its programs. It is crucial, however, that IMF/World Bank conditionality not be diluted, lest it become even more difficult to mobilize private investment.

Although the World Bank increased its net disbursements to the Baker countries by more than $1 billion last year, it should relax arbitrary limits and heighten its newly established emphasis on quick-disbursing, policy-based loans. Moreover, the Bank should give greater attention to improving the climate for private-sector investment, both domestic and foreign, in the debtor countries. The IFC affiliate of the Bank should be fully involved in this, especially in expanding the opportunities for equity investment. For example, the IFC should step up its already-fruitful efforts to establish equity investment funds for individual debtor countries; these funds could be used by smaller banks and other investors as vehicles for debt-equity swaps. The Bank also could catalyze greater lending by commercial banks and others through expanded cofinancings, including those carrying its partial guarantee. In addition, either the Bank or the Fund could assist debtors in managing interest rate and currency risks, for example by encouraging appropriate hedging through interest rate swap or cap agreements with the debtors.

In the not-too-distant future the World Bank will need additional capital. Dollar depreciation has crimped the Bank's lending capacity. With a larger portion of its assets denominated in nondollar currencies than its capital, the dollar value of the Bank's assets has risen relative to its capital, reducing its capital adequacy. Early agreement on a sizable capital increase therefore should be part of the mandate for a larger role for the Bank in dealing with debt problems.*

The capabilities of the official export credit agencies in the major industrial countries also have to be mobilized fully, to reverse the sharp falloff in their net lending to the debtor countries during recent years. Encouragement can be taken from the recent announcement of Japan's intent to increase lending to the major debtors by the Japanese Export-Import Bank. The Bank is to make up to $3 billion in untied loans to these countries over the next three years and is to participate, via cofinancing with Japan's Overseas Economic Cooperation Fund and Japanese commercial banks, in another $9 billion in new credits. Another welcome development is the proposal by the head of the U.S. Export-Import Bank that official agencies should extend longer-term, fixed-rate export financing to heavily indebted countries undertaking structural adjustment programs. Besides capital goods, the agencies could widen the range of exports they finance to include essential raw materials, parts, and related local-currency costs.

Regrettably, many agencies continue to restrict export cover for countries rescheduling debts via the

---

*Japan has indicated its readiness to participate in future World Bank capital increases and IDA replenishments, and will permit increased World Bank borrowing in the Tokyo capital market. In addition, the government has agreed to provide Y30 billion ($200 million) in grants for technical assistance and interest rate subsidies on projects qualifying for World Bank loans.

Paris Club. Although some agencies now restore cover quickly once a rescheduling agreement is reached, there remains much room for improvement. The Club also should agree to more comprehensive debt restructurings, whose scope hitherto has been limited compared with those agreed to by banks. These official agencies were established to promote trade by sharing risks that traders and private lenders could not assume. It is time that they live up to their mission.

The banks' cafeteria

Despite their concern to reduce exposure to the heavily indebted LDCs, the banks are not altogether unwilling to lend when warranted. However, having restructured at long term the obligations of all the larger problem debtors, except Brazil, the banks are increasingly concerned by the role they have been required to play as "residual" lender, financing the gap that remains after official creditors have decided what they are prepared to lend. And, as commercial institutions, banks have varying interests in providing new money and managing their existing exposures. Working with the debtors and other creditors, banks therefore are keen to streamline procedures and develop some options to enhance the attractiveness of lending and investing.

Streamlining the new money process would be aided by reducing the number of banks involved.* Relatively minor shares of total bank exposure to most debtor countries are held by a fairly large number of banks. Many of these banks are small in size, have no business reason for continued lending to these countries, and balk at committing new money. Banks could be given the option of exchanging some amount of their existing exposure for a special exit instrument that would release holders from new money obligations. Such an option was included in the recent Argentine financing package but found no takers because the terms of the exit instrument — 4% fixed-rate, 25-year bonds — were inferior to those prevailing in the market. Incentive fees are another means to accelerate completion of new money arrangements, proving highly effective just recently in the case of Argentina.

Most past lending to what are now the problem debtor LDCs took the form of illiquid syndicated credits. Today, banks would prefer a portion of their new credits to take the form of marketable instruments, such as bearer bonds or floating rate notes. Though the market may price them at a discount, they can provide banks with assets more liquid than a traditional loan and offering more flexibility in exposure management. Marketable instruments also can be devised with features enhancing their attractiveness to potential investors.

Although they recognize that the scale of the debtors' new money needs requires that general-purpose lending should continue, commercial banks prefer that new money, to the extent possible, be keyed to specific uses. Most attractive to banks are expanded opportunities for cofinancing with the World Bank, particularly those incorporating partial guarantees. Cofinancing helps assure that loans are used for the intended purposes, with the World Bank monitoring borrower performance. Risk-spreading through partial guarantees, cross-default provisions, and arrangements for sharing payments could increase the funds that banks are prepared to commit. Expanded opportunities under officially supported export credit guarantee and insurance programs likewise could increase bank lending.

---

*As an alternative to tortuous and unending negotiations, some banks favor a more automatic approach. Formal capitalization of interest on existing loans might substitute for new lending, on the argument that the effects on debtor-country cash flows and debt levels are identical. Permanent forgiveness of interest on existing loans under certain conditions also might replace new lending; for example, a bank might agree to zero interest on its existing exposure until the receipts forgone were equivalent to the amount of its new money obligation. Besides raising difficult regulatory and accounting problems for banks headquartered in the United States and certain other countries, the fundamental objection to interest capitalization or forgiveness is the risk that a one-time, limited exercise at the option of some lenders could open the door to more generalized capitalization or forgiveness, even to capitalization at the discretion of borrowers. This would seriously undermine discipline among both creditors and debtors and delay the debtors' return to markets.

Financing options with value-added potential also are attractive. New money in the form of additional trade credit, for example, enables banks to serve their clients involved in trade with the debtor countries and, in general, to promote more open economies. Trade finance further is appealing because most countries give priority to prompt servicing of their trade-related debt. New money for project finance similarly enables banks to serve clients participating in the projects concerned; banks find comfort in financing productive investment that increases the country's capacity to earn foreign exchange. New money in the form of equity investment is attractive to a number of banks, sometimes to boost the capital of their existing local affiliates or to establish or acquire new ones. Finally, rather than lend merely to the government, banks want the option to onlend part of their new money to borrowers of their choice. Onlending, akin to the relending option banks have sought for restructured debt, provides banks opportunities to serve existing clients in the country, including affiliates of multinationals, and to develop new business.

Insofar as the banks' desired options would allow new money to be directed to the private sectors of the debtor countries, the possible implications for the balance of payments, government finance, and domestic monetary conditions are legitimate concerns and will need to be worked out carefully. Still, the options make sense for the banks, and should do so for the debtors also, since acceptance would assist the recovery of confidence in these countries.

Of course, it should not be imagined that prompt access to a wide range of options will inspire some great and instant flood of new bank money for the debtor countries. For some time to come, new bank money will be forthcoming only on a modest scale, reflecting not only the banks' determination to strengthen their balance sheets but also the performance shortcomings of the debtor countries — Brazil's demand management problems may be the leading current example of these but they also include the limited progress of most debtors in implementing structural reforms.

It is vital that the banks work with the IMF and the World Bank in encouraging policy improvement in the debtor countries. In fact, the importance cannot be overestimated of involving the banks early in consultations with the official institutions and the debtors in the design of new money packages. If market access is to be restored to these countries, potential private investors, including banks, are best equipped to offer advice on the performance conditions the markets require and the feasible forms and magnitude of market finance. Once confidence begins to recover, and the debtors elicit reflow of flight capital and see their official reserves build up, it would be a shrewd move, both materially and psychologically, for the debtors to buy back some of their outstanding debt to banks. It would be received as a constructive step toward the normalization of the debtors' access to credit markets.

Table 11

Debt-equity swap programs of selected debtor countries

	Debt conversion through mid-1987		*External debt to banks, end-1986*
	$ billions	*% of end-1986 bank debt*	*$ billions*
Active programs			
Chile	1.9	13.6	13.9
Mexico	0.9	1.1	77.3
Philippines	0.1	0.5	15.4
Ecuador	0.1	1.1	5.8
Costa Rica	0.0	2.8	1.4
*Announced but not yet active**			
Argentina	0.5	1.5	33.0
Venezuela	—	—	29.3
*Under negotiation***			
*Brazil**	2.5	3.2	77.9
Bolivia	—	—	1.7
Jamaica	—	—	0.6
Nigeria	—	—	11.0
Total for 11 countries	5.9	2.2	267.3

*Conversions shown were under discontinued programs.
Argentina's program will take effect once its recent agreement with banks is signed; Venezuela's took effect in April 1987.

**Bolivian swaps could be limited by a possible government repurchase of debt to banks; Jamaica plans to limit conversions to government debt covered by this year's restructuring; Nigeria's conversions are to be limited to suppliers' credits in arrears for which the central bank has issued promissory notes.

Debt-equity swaps

Eleven principal LDC debtors have established, or currently are considering, some form of debt-equity conversion scheme. Relative to the $267 billion total of debts that these countries owe foreign banks, conversions to date have been modest — barely $6 billion, or 2.2% of their bank debt, including those under old, discontinued programs in Argentina and Brazil (see Table 11). Of the total converted, Chile alone accounts for over one-fifth. Indeed, Chile has converted approximately 14% of its debt to foreign banks to equity or local-currency debt in only two years.

The potential for debt-equity swaps depends on the supply of discountable debt and the demand for this type of investment. Recent decisions by banks to increase loan loss reserves and dispose of some existing LDC loans suggest that the supply of paper available for conversion could grow substantially. However, the demand for conversion is apt to be limited by the availability of suitable commercial activities or new projects. That availability is a function of the investment climate in the debtor countries and is subject to the reservations held by some of their policymakers.

According to proponents, debt-equity swaps can accelerate and increase foreign investment in these countries, with the accompanying benefit to them of access to foreign management skills, technology, and export markets. If open to participation by residents, swaps can mobilize for domestic investment their assets now held abroad, helping reverse the massive capital outflows of the 1970s and first half of the 1980s that bred large increases in debt. Swap critics — numerous in the debtor-country governments and also found in academia and segments of officialdom in industrial countries* — focus on the issues raised by swaps for monetary and fiscal control, resource allocation, external financing, and question whether swaps carry "additionality," that is, whether the additional investment yielded by conversion programs justifies the costs and benefits the debtors' foreign exchange cash flows.

Debt-equity swaps can make a useful contribution to the management of debt problems. Conducted on a major scale, as Chile is doing, swaps can even make substantial inroads on debt burdens. For most debtors, however, it is probably more realistic to expect that swaps will help contain the growth of total debt, not reduce the level significantly, except perhaps the component owed to banks — an important consideration for banks that are under pressure to curtail their exposure and involuntary lending to these countries.

The more valuable contributions that swaps can make to the debtor countries lie in raising investment rates, improving the allocation of resources, recapitalizing private sectors, and providing new inputs of modern technology. Reform programs in the debtor countries have precisely these objectives but, even when implemented, ordinarily may take considerable time to change the perceptions and expectations of investors. Properly structured conversion programs can speed up that change through the financial incentive provided by the discount on the converted debt.

These are the criteria by which Chile's program truly is successful. Its unrestrictive and straightforward mechanics have complemented expanding opportunities for private-sector investment, thanks to deregu-

---

*For example, in Brazil some members of the Constituent Assembly have voiced opposition. And, just recently, the Group of Thirty published a study that, on balance, is critical.

Table 12

Realized returns on selected LDC money market instruments*

percent per annum

	Local-currency terms		Dollar terms**	
	Jan 1986-Mar 1987	Apr 1987-Jun 1987	Jan 1986-Mar 1987	Apr 1987-Jun 1987
Argentina	100	138	23	12
Brazil	273	853	19	—56
Chile	20	29	8	2
Mexico	133	148	0	80
Philippines	15	9	13	9
Dollar LIBOR			7	7

*Argentina: 30-day time deposits; Brazil: 90-day Treasury bills; Chile: 60-day promissory notes; Mexico: 90-day time deposits; Philippines: 90-day promissory notes; Dollar LIBOR: 6-month deposits.

**Periods of rapid or catch-up devaluations of local currencies depress returns in dollar terms.

lation, privatization, a relatively well-developed domestic capital market, and liberal foreign investment regulations. A key lesson of Chile's experience is the importance of broad-ranging policy reform in opening investment opportunities in the domestic private sector for residents' and foreign capital alike, plus careful management of the monetary and fiscal consequences of swaps.

Probably the most frequent criticisms of debt-equity swaps allege monetary and fiscal consequences inimical to domestic stabilization. The local currency required for the repurchase of external debt usually has to be provided by the monetary authority or the government of the debtor country, through either money creation or the issuance of domestic public debt. Excessive money growth or upward pressure on interest rates then can result. Moreover, the public-sector deficit may increase if, as Table 12 suggests, the cost to the government of borrowing local currency is higher amid prevailing austerity efforts than the local-currency equivalent of the ongoing cost of servicing the foreign-currency debt to be redeemed.

The force of these criticisms depends on the levels of domestic financial market development and fiscal imbalance. Financial markets that are broad and deep are better able to absorb the liquidity creation incident to debt-equity swaps than are the narrow and shallow markets of most debtor countries. Typically, their public sectors further have been heavy external borrowers and much of their private-sector debt has been effectively nationalized.

In these circumstances, monetary policy tends to be driven by fiscal dictates and may have a hard time coping with large-scale debt-equity conversions. Actually, even at their most severe, the monetary effects of swaps are no different than those caused by foreign investment inflows in cash, which most debtor governments presumably would welcome. In either case, excessive monetary expansion need not result if the central bank has the latitude to limit other liquidity creation appropriately, possesses adequate instruments to do so, and is willing to use them. Still, in practice, the scope and features of all debt-equity programs limit their monetary impact and take account of domestic financial market development. Programs may set quotas per time period (sometimes auctioned); require deposits to be frozen for a time, subject to release on some specified schedule (perhaps in line with a project's liquidity needs); or restrict conversions to certain activities or classes of eligible debt. Even Chile's exceptionally liberal scheme auctions conversion rights.

Some policymakers and critics of debt-equity swaps approach the question of resource allocation with an unabashedly political perspective, betraying a strong bias favoring national versus foreign, and public versus private, control. They prefer to restrict swaps, if any, to approved areas that do not threaten national or public-sector control. The economic content of their criticism is twofold: first, that retirement of public-sector external debt may not be a high-priority use for scarce public resources; and, second, that the preferential exchange rate said to be implicit in swap transactions amounts to a subsidy sending wrong signals to investors and distorting resource allocation.

The first point obviously does not refute the value of private-sector debt conversions. At the same time it overlooks the need for increased effectiveness of public-sector spending and management generally, a goal that equity infusion can advance. The second point is highly disingenuous given the glaring economic distortions induced in the debtor countries by the plethora of other subsidies and interventions that enjoy official favor yet leave the private sector undercapitalized. These countries are not, after all, textbook market economies. To say the least, it is a mite purist to adduce arguments against debt-equity conversion on efficiency grounds. Indeed, were the debtor countries willing to allow the markets freely to balance supply and demand for foreign exchange, their debt-servicing capacity would improve, discounts on their debt would narrow, and the arbitrage incentive for debt conversion and "round-tripping" to exploit the discounts would shrink, or even disappear.

Investment additionality and the external financing ramifications of debt-equity swaps are further policymaker concerns. Additionality cannot be quantified exactly. At stake are not only the investment decision itself but also its size and timing. Market commentary suggests that the financial incentive provided by a swap program can accelerate the timing and increase the amount of an investment. Whether financial incentives are the determining factors for investment depends on the specific case. Sometimes the debtors must reconcile themselves to offering competitive incentives if they are to attract investment at all. Thus in the automobile and other relatively high-technology industries with transnational production systems, investment location is strongly influenced by financial incentives.

Of course, swaps can allow those foreign investors who already are inclined to invest to finance their projects without bringing in cash. Equally, swaps may subsidize reflows of residents' capital that would have occurred anyway, implying unnecessary costs and denying the use of cash foreign exchange inflows for purposes other than debt reduction. To obviate loss, Argentina requires that debt-equity swaps be matched by equivalent new cash investment — a requirement that slashes the effective incentive provided by the swap mechanism and largely defeats its purpose. Besides, since neither foreigners nor residents nowadays are investing heavily in the debtor countries, the size of the possible loss of cash inflows can hardly be great.

On the whole, it is reasonable to presume that the incentive provided by a well-designed conversion program does deliver additionality, because it helps cover the higher risk premiums that investors sensibly require in the uncertain investment climates of most debtor countries. This appears to have been the case in Mexico, where direct private investment in 1986, as recorded in the balance of payments, reached twice the average of the previous three years.

All in all, debt-equity swaps offer an effective, market-based mechanism for channeling resources to the private sector. Debtors that foster a smoothly functioning swap mechanism symbolize their constructive endeavor to rein back government in favor of a dynamic, growth-oriented private sector. Besides, if the recent debt negotiation with Argentina and the opening soundings in the Brazilian case are any indication, banks may be increasingly insistent that the new money they provide to the debtor countries be conditioned on a policy package that encourages debt-equity conversion. In the banks' view, an active swap scheme builds investor confidence, constituting one of the best ways to promote repatriation of assets held abroad and strengthen the equity base of domestic private sectors. Thus swaps have a vital role to play not only in improving the efficiency of the debtors' domestic investment efforts but also in normalizing their finances.

Statistical appendix

For key to data in tables see April 1987 issue.

Effective exchange rates —
Industrial countries, 16

Real effective exchange rates —
developing countries, 17

International banking market size, 17

International bond issues and
bank credits, 18

Eurocurrency deposit rates, 19

International bond yields, 19

Central bank discount rates, 20

Day-to-day money rates, 20

Treasury bill rates, 21

Representative money market
rates, 21

Commercial bank deposit rates, 22

Domestic government bond yields, 22

Commercial bank lending rates
to prime borrowers, 23

Domestic corporate bond yields, 23

Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates — industrial countries

Index numbers, 1980-82 average=100.

Nominal against 15 other industrial-country currencies

		United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
1981		99.5	100.2	105.8	104.0	100.4	97.2	98.8	102.1	98.9	101.8	97.1	99.4	98.3	99.2	100.1	103.3
1982		109.8	99.4	98.6	100.1	93.1	102.8	92.8	98.1	101.7	92.3	102.7	94.1	106.3	95.7	101.7	92.8
1983		114.2	100.8	107.8	92.0	87.3	107.6	90.3	91.6	103.6	90.0	105.0	78.4	111.5	96.4	99.4	82.2
1984		122.4	97.3	113.0	94.2	84.4	107.4	86.7	88.1	103.6	88.9	104.0	77.4	110.5	93.9	97.8	84.3
1985		127.1	92.8	115.8	76.3	85.4	107.8	82.1	88.2	104.2	89.5	104.0	75.6	109.5	95.0	95.6	83.9
1986		106.0	87.6	150.1	61.4	87.4	116.1	82.9	80.7	107.8	92.9	110.3	73.4	118.1	99.7	89.3	81.6
1987																	
January		98.5	88.1	156.1	57.2	87.4	122.2	84.0	74.8	110.4	95.9	114.9	71.9	121.7	103.9	83.8	79.9
February		96.9	89.7	156.4	57.2	87.9	122.7	83.9	74.8	110.7	96.4	115.0	71.3	121.4	104.6	84.4	80.0
March		96.0	90.5	157.9	58.3	87.3	121.7	83.3	78.1	110.3	95.7	114.1	71.1	121.4	103.7	84.8	80.6
April		94.0	90.2	165.9	59.1	87.2	121.4	82.9	78.8	110.0	95.5	114.1	71.1	123.0	103.2	85.3	80.6
May		93.5	88.4	168.2	58.7	87.1	121.7	82.1	79.8	110.1	95.6	114.3	71.4	123.8	103.6	85.8	80.4
June		94.8	88.8	164.7	59.9	87.1	121.6	81.8	79.1	110.2	95.6	114.3	71.9	122.7	103.4	86.5	80.5
May	29	94.7	88.4	165.7	59.5	87.2	121.6	82.0	78.8	110.2	95.6	114.4	71.5	123.0	103.5	86.2	80.5
June	5	94.7	88.6	165.4	59.6	87.0	121.6	81.8	79.2	110.2	95.6	114.3	71.6	122.9	103.4	86.1	80.6
	12	94.3	88.5	165.7	59.3	87.1	121.8	81.7	79.7	110.3	95.6	114.4	71.8	122.9	103.6	86.0	80.5
	19	94.6	88.6	165.1	59.8	87.1	121.6	81.7	79.5	110.2	95.5	114.3	71.8	122.6	103.5	86.3	80.6
	26	95.1	89.3	164.3	60.3	87.1	121.5	81.8	78.4	110.2	95.5	114.4	72.2	122.6	103.4	87.1	80.5
July	3	95.3	89.6	161.8	60.6	87.2	121.6	81.7	78.7	110.3	95.5	114.4	72.1	122.4	102.7	87.2	80.4
	10	95.8	90.1	159.1	60.0	87.2	121.5	81.6	79.4	110.2	95.4	114.3	72.3	121.9	102.4	87.3	80.5
	17	95.8	90.3	158.3	60.1	87.2	121.4	81.6	79.6	110.2	95.3	114.2	72.5	122.0	102.3	87.3	80.4

Real against 15 other industrial-country currencies

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
1981	100.8	99.5	104.8	102.6	100.0	96.9	98.9	102.5	99.4	101.4	97.1	99.6	98.7	96.9	101.3	101.9
1982	109.3	100.6	92.4	105.7	97.3	99.9	96.5	98.8	101.2	91.9	100.5	99.0	103.0	97.9	103.2	95.6
1983	112.7	102.6	96.8	101.9	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.9	105.1	100.4	102.0	90.7
1984	119.6	100.2	97.8	106.4	97.0	98.0	101.8	90.2	103.0	85.9	97.8	91.1	100.1	99.2	100.5	96.0
1985	122.5	96.5	96.6	89.5	100.5	96.7	100.2	92.8	103.3	85.3	96.6	92.5	98.0	101.2	99.5	96.9
1986	101.5	93.4	119.2	78.9	103.9	103.4	102.6	87.4	106.6	84.6	101.4	94.0	105.6	107.5	97.1	96.0
1987																
January	94.5	94.7	120.9	77.5	105.3	107.0	105.8	82.2	108.8	86.1	104.6	93.6	108.6	111.5	95.6	95.4
February	93.1	95.8	120.5	77.9	105.8	107.4	105.4	82.3	109.3	85.8	105.1	93.5	108.6	112.0	98.5	95.5
March	92.4	96.4	121.0	79.9	105.5	106.2	104.8	86.0	108.1	85.1	104.9	93.4	108.9	112.2	98.6	95.7
April	90.5	96.5	126.3	81.4	105.8	106.2	103.7	87.1	107.2	83.9	105.4	93.8	109.6	111.9	99.9	95.6
May	90.0	95.1	127.6	81.3	106.3	106.5	102.3	88.5	107.2	83.0	105.7	94.3	110.4	112.4	100.5	95.7
June	91.5	95.1	124.4	83.1	106.6	106.1	102.5	87.6	107.4	82.9	104.9	95.0	110.2	112.3	103.6	95.6

Real against 18 other industrial-country and 22 LDC currencies

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
1981	99.8	99.4	104.7	102.5	99.5	96.2	98.2	102.0	98.9	100.9	96.6	98.9	98.0	98.7	101.3	101.6
1982	109.6	101.8	94.0	105.2	96.9	99.3	98.1	98.5	101.1	91.6	99.5	98.9	102.6	97.7	103.0	95.4
1983	114.9	104.6	100.4	102.1	94.4	100.6	100.8	93.0	102.1	88.2	99.5	89.2	105.1	100.3	101.9	90.9
1984	120.8	102.7	102.4	106.7	96.4	96.8	101.0	89.7	102.7	85.0	95.9	91.3	99.8	99.0	100.5	95.7
1985	124.0	99.2	101.6	90.1	100.0	95.8	99.8	92.3	102.9	84.5	94.8	93.2	97.8	101.2	99.8	96.8
1986	107.1	94.5	124.0	80.8	104.5	104.5	104.1	88.2	107.4	85.1	101.4	96.5	107.5	108.0	97.9	96.8
1987																
January	101.3	95.4	125.5	79.4	106.7	109.5	108.5	83.7	110.4	87.3	105.7	97.4	111.8	112.3	96.6	96.6
February	100.2	96.5	125.0	79.8	107.4	110.1	108.3	84.1	111.0	87.2	106.2	97.4	112.0	113.0	99.6	96.8
March	99.5	97.0	125.6	81.9	106.9	108.8	107.6	87.7	109.8	86.4	106.1	97.2	112.0	113.2	99.7	97.1
April	97.5	96.8	130.8	83.4	107.0	108.7	106.4	88.8	108.7	85.2	106.5	97.5	112.6	112.9	100.9	96.9
May	97.0	95.4	132.0	83.3	107.5	109.0	105.0	90.3	108.8	84.4	106.7	98.1	113.4	113.5	101.7	97.3
June	98.1	95.4	128.8	84.7	107.7	108.4	105.1	89.3	108.9	84.2	105.8	98.8	113.2	113.3	104.6	97.0

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1981	107.8	103.3	108.3	100.6	114.4	103.3	99.7	98.9	99.8	100.3	99.4	101.2	102.0	101.8	99.3	104.7
1982	77.0	112.9	97.3	105.9	82.9	104.6	110.2	101.6	111.7	101.9	105.6	106.7	100.8	96.6	108.6	96.0
1983	71.5	86.2	89.2	104.9	78.8	98.4	117.2	95.8	96.3	97.6	113.9	96.1	101.8	94.5	120.8	93.5
1984	80.1	85.7	90.1	99.6	91.8	105.8	86.0	100.2	96.0	96.5	119.7	107.9	102.4	97.1	119.5	91.1
1985	71.2	85.1	79.7	85.7	90.5	96.3	93.0	104.2	94.8	89.2	116.4	114.6	95.7	94.6	106.8	91.5
1986	61.0	74.5	68.7	67.8	65.1	93.8	85.4	94.9	71.7	75.8	94.6	90.2	80.3	88.7	100.9	71.1
1986																
July	61.5	72.1	69.5	66.7	65.0	92.0	89.7	93.3	76.3	74.2	91.9	87.7	78.5	88.9	100.9	69.7
August	60.9	72.1	67.8	66.0	62.3	91.8	89.7	92.4	75.1	73.5	91.4	85.7	78.4	88.9	99.4	67.7
September	58.7	72.4	67.5	65.8	60.6	93.5	89.9	94.0	62.0	74.0	91.0	86.4	77.9	89.3	100.4	67.4
October	58.7	71.6	67.7	64.9	60.4	96.6	90.7	94.7	56.3	74.2	89.9	88.0	77.4	89.0	100.8	67.6
November	59.3	72.8	68.0	64.6	60.6	100.7	92.2	96.7	57.7	75.6	92.2	88.9	78.5	90.3	102.0	65.7
December	58.7	75.9	68.0	65.2	59.8	105.4	47.4	95.2	57.3	75.8	91.9	90.0	78.4	89.9	102.1	64.6
1987																
January	56.2	75.9	65.6	65.7	60.8	107.8	46.3	91.0	56.0	74.1	90.3	87.5	76.4	88.8	94.6	63.7
February	55.5	71.7	66.1	66.1	61.2	111.1	46.7	90.5	56.0	73.7	89.7	84.9	74.7	88.4	93.3	63.3
March	53.3	71.3	66.6	65.7	62.1	113.0	46.6	91.5	55.1	73.8	89.1	84.5	74.2	89.2	94.5	64.0
April	53.2	74.2	66.1	64.7	62.2	115.9	46.4	90.7	53.7	73.6	88.7	81.2	73.0	89.7	95.1	63.5
May	54.0	72.3	66.5	63.6	59.7	118.3	46.7	90.9	53.8	74.1	88.1	80.3	74.0	95.0	95.2	63.1
June	52.5	71.9	66.9	63.6	61.8	122.5	47.2	92.5	54.6	75.4	88.6	80.2	75.2	98.8	97.8	62.2

International banking market size

at end of period, billions of dollars

	1981	1982	1983	1984	1985	1986			
					Dec	Mar	Jun	Sep	Dec
Gross claims									
Eurocurrencies, on residents and nonresidents	**1 929**	**2 146**	**2 253**	**2 359**	**2 833**	**2 947**	**3 040**	**3 347**	**3 560**
On nonbanks	557	634	665	694	822	854	875	914	938
On banks	1 372	1 512	1 588	1 665	2 011	2 093	2 165	2 433	2 622
In dollars	1 504	1 694	1 797	1 894	2 101	2 138	2 166	2 381	2 534
In other currencies	425	452	456	465	732	809	874	966	1 025
Domestic currencies, on nonresidents	**365**	**398**	**402**	**402**	**506**	**535**	**578**	**633**	**672**
On nonbanks	128	132	140	142	187	186	201	211	209
On banks	237	266	262	260	319	349	377	422	463
In dollars	188	211	221	215	215	203	210	219	227
In other currencies	177	187	181	187	291	332	368	414	445
Total	**2 294**	**2 544**	**2 655**	**2 761**	**3 339**	**3 482**	**3 618**	**3 980**	**4 232**
On nonbanks	685	766	805	836	1 009	1 040	1 076	1 125	1 147
On banks	1 609	1 778	1 850	1 925	2 330	2 442	2 542	2 855	3 085
In dollars	1 692	1 905	2 018	2 109	2 316	2 341	2 376	2 600	2 761
In other currencies	602	639	637	652	1 023	1 141	1 242	1 380	1 470
Gross liabilities									
Eurocurrencies, to residents and nonresidents	**1 954**	**2 168**	**2 278**	**2 386**	**2 846**	**2 964**	**3 059**	**3 384**	**3 579**
To nonbanks	372	432	479	497	585	610	632	660	685
To official monetary institutions	112	91	88	96	112	106	109	110	109
To other banks	1 470	1 645	1 711	1 793	2 149	2 248	2 318	2 614	2 786
In dollars	1 539	1 741	1 846	1 950	2 147	2 166	2 204	2 425	2 553
In other currencies	415	427	432	436	699	798	855	959	1 026
Domestic currencies, to nonresidents	**263**	**250**	**260**	**280**	**377**	**394**	**418**	**464**	**494**
To nonbanks	74	70	73	80	114	121	121	121	116
To banks	189	180	187	200	263	273	297	343	377
In dollars	126	116	135	146	169	166	171	191	192
In other currencies	137	134	125	134	208	228	247	273	302
Total	**2 217**	**2 418**	**2 538**	**2 666**	**3 223**	**3 358**	**3 477**	**3 848**	**4 073**
To nonbanks	446	502	552	577	699	731	753	781	801
To banks and official institutions	1 771	1 916	1 986	2 089	2 524	2 627	2 724	3 067	3 272
In dollars	1 665	1 857	1 981	2 096	2 316	2 332	2 375	2 616	2 745
In other currencies	552	561	557	570	907	1 026	1 102	1 232	1 328
Net market size	**1 155**	**1 285**	**1 382**	**1 430**	**1 676**	**1 735**	**1 800**	**1 910**	**1 980**

International bond issues and bank credits

millions of dollars

	1984	1985	1986	1987			Jan-May	
				Mar	Apr	May	1987	1986
By country of borrower								
Industrial countries	**177 077**	**226 711**	**270 231**	**22 443**	**22 634**	**13 755**	**102 241**	**109 831**
Australia	5 816	14 407	20 106	909	922	883	4 878	8 379
Austria	2 254	2 435	3 581	190	158	233	1 974	2 019
Belgium	1 847	3 269	4 952	238	468	543	2 054	2 611
Canada	13 124	17 184	21 633	963	891	630	4 323	7 581
Denmark	4 825	3 589	9 633	442	224	400	3 502	1 543
Finland	1 713	1 846	3 445	245	417	359	1 967	1 164
France	11 298	18 773	19 701	1 338	1 071	696	7 243	6 735
Germany	2 165	3 452	11 927	1 319	433	683	5 916	5 249
Greece	1 551	1 587	1 317	—	—	—	110	488
Ireland	1 377	1 881	4 179	—	682	144	939	1 483
Italy	6 933	11 033	12 962	793	332	961	3 254	6 545
Japan	17 526	21 269	35 508	4 558	5 862	1 804	17 606	12 202
Netherlands	1 973	2 299	3 579	358	304	326	2 113	1 626
New Zealand	3 208	2 707	8 078	847	354	108	2 536	2 974
Norway	1 324	3 905	6 644	1 459	146	300	3 355	1 372
Portugal	1 796	2 382	2 433	168	—	432	815	920
South Africa	1 422	825	—	—	—	—	—	—
Spain	4 931	3 913	7 015	25	130	205	757	1 507
Sweden	11 256	9 890	8 020	729	274	356	2 889	5 558
United Kingdom	8 899	25 424	24 295	2 468	6 132	1 764	15 347	8 966
United States	65 054	69 193	56 774	5 060	3 608	2 665	18 469	28 661
*Other**	6 785	5 447	4 448	334	227	262	2 193	2 249
Developing countries	**39 725**	**32 139**	**24 317**	**2 080**	**8 957**	**890**	**14 240**	**10 662**
Latin American countries	**17 464**	**8 115**	**3 192**	**54**	**7 750**	**170**	**8 525**	**916**
Argentina	4 212	3 700	17	—	—	—	—	17
Brazil	6 649	—	219	—	—	—	—	—
Chile	784	1 085	—	—	—	—	—	—
Colombia	589	1 052	89	—	50	—	50	—
Mexico	3 918	109	313	—	7 700	—	7 700	50
Venezuela	—	48	—	—	—	—	—	—
*Other***	1 312	2 121	2 554	54	—	170	775	849
Asian countries	**15 893**	**18 410**	**15 291**	**1 584**	**856**	**657**	**4 415**	**7 585**
India	945	818	1 721	262	56	30	625	695
Indonesia	1 924	451	1 358	60	346	24	620	983
Korea	6 201	5 898	3 134	750	—	47	822	1 841
Malaysia	2 605	2 219	1 328	—	83	—	167	208
Philippines	925	925	—	—	—	—	—	—
Thailand	1 221	1 497	1 401	100	69	—	169	1 016
Other	2 072	6 602	6 350	412	303	556	2 011	2 843
Middle Eastern and African countries	**6 368**	**5 613**	**5 834**	**442**	**351**	**63**	**1 301**	**2 160**
Algeria	821	1 450	1 344	75	76	3	154	407
Nigeria	985	—	—	—	—	—	—	—
Turkey	741	1 203	2 637	207	200	35	747	1 012
Other	3 821	2 960	1 853	160	75	25	400	741
Eastern European countries	**3 244**	**5 236**	**4 091**	**464**	**338**	**169**	**1 656**	**1 919**
Hungary	1 386	1 577	1 315	104	138	—	714	521
Soviet Union	1 051	1 489	1 821	79	200	169	662	1 248
*Other****	807	2 169	955	280	—	—	280	150
International organizations****	**13 287**	**20 635**	**16 916**	**1 390**	**1 430**	**611**	**7 995**	**8 070**
By type of instrument and currency								
International bond issues	**107 411**	**167 756**	**226 393**	**19 723**	**16 427**	**12 515**	**87 436**	**95 117**
Eurobonds	79 458	136 731	187 952	17 507	14 397	10 399	74 100	78 402
U.S. dollar	63 593	97 782	118 220	8 219	6 201	2 899	26 701	46 885
German mark	4 604	9 491	16 870	1 308	329	976	8 810	8 044
British pound	3 997	5 766	10 510	2 760	1 110	1 678	8 157	5 712
Japanese yen	1 212	6 539	18 673	3 349	4 205	2 189	14 562	7 166
European composite units	3 032	7 038	6 965	784	432	760	4 569	3 711
Other	3 020	10 114	16 713	3 089	2 121	1 897	11 301	6 883
Foreign bonds	27 953	31 025	38 441	2 215	2 030	2 116	13 335	16 715
U.S. dollar	5 487	4 655	6 064	600	200	—	1 750	2 664
German mark	2 243	1 741	—	—	—	—	—	—
British pound	1 292	958	322	—	—	—	—	186
Swiss franc	12 626	14 954	23 401	1 447	1 413	1 385	8 789	9 827
Japanese yen	4 628	6 379	4 756	—	104	432	1 517	2 777
Other	1 677	2 339	3 698	168	313	300	1 279	1 261
International bank credits	**125 922**	**116 984**	**91 164**	**6 653**	**16 932**	**2 909**	**38 697**	**35 365**
Eurocurrency credits	112 605	110 317	82 755	5 871	16 293	2 495	35 669	32 833
Foreign credits	13 317	6 647	8 409	782	639	414	3 029	2 532
Total	**233 333**	**284 720**	**317 556**	**26 376**	**33 359**	**15 424**	**127 133**	**130 482**

*Includes multinational organizations. **Includes unallocated. ***Includes COMECON institutions. ****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1983	*1984*	*1985*	*1986*	*1987*					
	Dec	*Dec*	*Dec*	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*
Eurodollar										
overnight	9.50	8.63	12.25	22.00	6.00	5.87	6.25	6.50	6.69	6.44
one month	9.69	8.38	8.00	6.50	6.06	6.31	6.44	6.69	7.12	6.94
three months	9.81	8.63	7.88	6.25	6.12	6.31	6.50	7.00	7.25	7.06
six months	10.06	9.13	7.88	6.12	6.12	6.31	6.56	7.25	7.44	7.25
twelve months	10.38	9.81	7.94	6.12	6.12	6.37	6.69	7.62	7.94	7.62
Euro-Canadian dollar										
one month	9.13	9.88	9.00	8.00	7.37	7.12	6.87	7.37	7.87	8.06
three months	9.50	10.81	9.00	8.12	7.37	7.25	6.87	8.25	8.12	8.19
six months	9.75	10.06	9.00	8.19	7.37	7.44	6.94	8.62	8.44	8.37
twelve months	10.00	10.44	9.00	8.31	7.50	7.62	7.06	8.87	8.87	8.69
Euro-French franc										
one month	12.13	10.69	12.50	10.12	8.81	8.31	8.19	8.12	8.00	8.06
three months	12.19	10.69	13.00	10.37	8.87	8.44	8.25	8.25	8.19	8.37
six months	12.31	11.00	13.13	9.75	8.81	8.44	8.31	8.31	8.37	8.56
twelve months	12.63	11.38	12.25	8.75	8.81	8.44	8.31	8.50	8.62	9.00
Euromark										
one month	5.25	5.50	4.75	5.12	4.00	3.94	3.87	3.81	3.75	3.62
three months	5.88	5.50	4.75	4.87	4.12	4.00	3.87	3.81	3.75	3.81
six months	6.13	5.56	4.75	4.81	4.12	4.00	3.87	3.87	3.75	3.81
twelve months	6.38	5.56	4.81	4.81	4.19	4.12	4.00	4.00	3.87	3.87
Euro-Dutch guilder										
one month	5.81	5.69	5.75	6.31	5.44	5.31	5.31	5.19	5.06	5.19
three months	6.00	5.75	5.75	6.00	5.31	5.31	5.31	5.19	5.06	5.19
six months	6.25	5.81	5.81	5.87	5.19	5.25	5.31	5.19	5.12	5.19
twelve months	6.38	5.94	5.88	5.81	5.19	5.25	5.31	5.19	5.12	5.19
Euro-Swiss franc										
one month	3.38	4.44	3.88	3.94	3.25	4.19	3.25	3.25	4.25	3.69
three months	3.75	4.56	4.00	3.94	3.19	3.94	3.69	3.69	3.87	3.81
six months	3.94	4.63	4.00	3.87	3.31	3.87	3.69	3.69	3.87	3.81
twelve months	3.94	4.69	4.06	3.87	3.62	3.94	3.75	3.81	3.87	3.87
Eurosterling										
one month	9.13	9.50	11.69	11.12	11.06	11.12	10.00	9.44	8.87	9.12
three months	9.31	9.88	11.81	11.12	11.00	10.69	9.81	9.25	8.81	9.19
six months	9.50	10.00	11.81	11.06	10.87	10.37	9.69	9.12	8.81	9.19
twelve months	9.81	10.19	11.69	11.06	10.75	10.31	9.62	9.12	9.06	9.31
Euroyen										
one month	6.25	6.19	7.13	4.56	4.37	4.56	3.94	3.94	4.00	3.81
three months	6.31	6.19	6.56	4.50	4.25	4.25	4.00	3.94	3.87	4.00
six months	6.38	6.13	6.50	4.37	4.12	4.12	4.00	3.87	3.87	4.00
twelve months	6.44	6.13	6.38	4.31	4.06	4.06	4.00	3.94	3.94	4.06
European currency unit										
one month	8.81	9.25	9.63	8.56	7.62	7.44	7.16	6.94	6.69	6.56
three months	9.19	9.38	9.63	8.44	7.56	7.44	7.16	6.94	6.87	6.75
six months	9.44	9.50	9.63	8.06	7.50	7.44	7.16	7.00	7.00	6.94
twelve months	9.63	9.63	9.63	7.31	7.50	7.37	7.19	7.19	7.12	7.12

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years
at or near end of month

	1984	*1985*	*1986*		*1987*					
	Dec	*Dec*	*Nov*	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*
United States companies										
Eurodollar	11.25	9.68	8.71	8.67	8.70	8.71	8.78	9.53	9.78	10.11
Euromark	6.95	6.73	6.63	6.62	6.64	6.60	6.56	6.59	6.57	6.65
Swiss franc	5.73	5.49	5.73	5.70	5.67	5.64	5.68	5.55	5.52	5.50
European governments										
Eurodollar	12.04	10.52	9.81	9.91	9.85	10.03	10.08	11.00	11.24	11.14
Euromark	7.39	7.03	6.88	6.77	6.64	6.70	6.50	6.33	6.35	6.36
Swiss franc	5.24	4.91	4.58	4.51	4.40	4.35	4.37	4.27	4.34	4.33
European currency unit	10.64	10.23	10.55	10.20	10.38	10.37	10.26	13.07	10.32	10.51

Central bank discount rates

at or near end of month

	1984	1985	1986	1987					Current	
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul 23 1987	effective since
United States	8.00	7.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	Aug 21, 86
Canada	10.09	9.49	8.47	7.53	7.05	8.33	8.44	8.54	8.67	Jul 16, 87
Austria	4.50	4.00	4.00	3.50	3.50	3.50	3.50	3.50	3.50	Jan 23, 87
Belgium	11.00	9.75	8.00	8.50	8.00	8.00	7.75	7.50	7.25	Jul 23, 87
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.50	9.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	May 19, 86
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.50	4.00	3.50	3.00	3.00	3.00	3.00	3.00	3.00	Jan 23, 87
Ireland	14.00	10.25	13.25	13.25	13.25	12.75	11.75	11.25	11.25	Jun 16, 87
Italy	16.50	15.00	12.00	12.00	11.50	11.50	11.50	11.50	11.50	Mar 14, 87
Netherlands	5.00	5.00	4.50	4.50	4.50	4.50	4.50	4.50	4.50	Mar 7, 86
Norway	8.00	8.00	8.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Jun 6, 83
Portugal	25.00	19.00	16.00	15.50	15.00	15.00	15.00	15.00	15.00	Mar 23, 87
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	9.50	10.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	Sep 19, 86
Switzerland	4.00	4.00	4.00	3.50	3.50	3.50	3.50	3.50	3.50	Jan 22, 87
United Kingdom	9.38	11.31	10.81	10.81	9.81	9.31	8.87	8.87	8.87	May 8, 87
Japan	5.00	5.00	3.00	2.50	2.50	2.50	2.50	2.50	2.50	Feb 23, 87
New Zealand	13.50	19.80	24.60	25.80	28.20	28.40	n.a.	n.a.	28.40	Apr, 87
South Africa	21.75	13.50	10.00	10.00	10.00	10.00	10.00	10.00	10.00	Dec 10, 86
Argentina*	18.19	5.00	11.19	10.76	6.25	9.00	9.00	10.50	10.50	Jun 23, 87
Korea	5.00	5.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 86
Philippines	12.11	11.50	9.64	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Dec, 86
Singapore	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Jul, 85
Thailand	12.00	11.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Sep 1, 86
Venezuela	11.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	Mar, 85

*Percent per month.

Day-to-day money rates

monthly averages

	1983	1984	1985	1986		1987					
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
United States	9.47	8.38	8.27	5.64	6.71	6.43	5.45	6.13	6.37	6.85	6.73
Canada	8.78	10.50	9.23	8.28	8.28	8.03	7.22	7.16	7.10	7.41	8.35
Austria	5.75	7.63	7.25	5.00	7.62	4.25	4.25	4.12	4.25	3.80	3.95
Belgium	7.39	9.12	6.60	5.81	5.09	7.75	6.90	5.83	5.65	5.60	5.65
Finland	16.70	15.07	11.96	11.80	11.97	11.99	11.76	11.44	11.14	11.00	11.00
France	12.27	10.95	9.01	7.28	7.28	8.80	8.38	7.80	8.03	8.05	7.85
Germany	5.61	5.62	4.64	4.45	5.00	4.24	3.83	3.84	3.75	3.75	3.53
Ireland	12.19	14.50	9.62	13.13	13.00	13.36	13.94	13.75	13.25	12.00	n.a.
Italy	17.88	17.25	14.75	9.67	11.42	11.88	11.81	11.22	10.56	10.25	10.78
Netherlands	5.84	5.60	5.75	5.60	6.19	6.20	5.31	5.56	5.19	5.20	5.19
Norway	12.30	12.50	12.40	14.00	14.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	16.98	12.18	9.92	11.69	11.76	12.21	12.47	14.43	17.32	20.18	18.12
Sweden	11.52	11.88	11.83	8.64	8.89	9.09	11.73	12.02	8.70	8.00	8.00
Switzerland	1.88	1.50	2.00	1.00	1.12	1.00	1.00	1.00	1.75	1.37	2.25
United Kingdom	7.78	6.31	9.72	10.62	9.19	11.06	10.88	10.30	9.61	8.78	9.16
Australia	4.55	10.98	18.37	16.21	15.40	15.73	16.22	16.05	14.71	13.45	n.a.
Japan	6.44	6.41	8.02	3.77	4.18	4.09	4.05	3.85	3.52	3.17	3.15
South Africa	16.06	21.13	12.50	8.87	8.50	9.00	8.50	8.37	8.31	8.37	8.00
Argentina*	14.65	17.75	4.50	7.00	7.00	7.00	4.00	5.32	5.50	6.00	8.00
Brazil	184.69	272.02	352.23	55.55	83.05	270.00	412.00	406.00	853.00	n.a.	n.a.
Hong Kong	13.90	6.80	6.10	4.15	3.90	2.78	1.97	3.76	4.11	4.20	6.45
Korea	11.40	10.00	8.80	9.30	9.00	8.50	8.60	8.80	8.40	8.50	8.90
Philippines	31.18	15.22	15.03	7.98	n.a.	n.a.	6.44	13.79	13.29	n.a.	n.a.
Singapore	7.05	6.01	4.53	2.62	3.51	3.10	3.22	2.24	3.31	4.39	2.57
Taiwan	7.65	8.07	4.50	3.60	3.00	3.25	3.25	3.10	3.50	3.50	3.50

*Percent per month.

Treasury bill rates

bond equivalent yields, at or near end of month

	1983	1984	1985	1986		1987					
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
United States	9.28	7.99	7.25	5.44	5.73	5.66	5.48	5.76	5.61	5.82	5.90
Canada	9.71	9.84	9.24	8.24	8.22	7.24	7.28	6.80	8.08	8.19	8.29
Belgium	11.00	10.90	9.89	7.45	7.50	7.99	7.86	7.50	7.35	7.15	6.84
Ireland	12.01	15.10	11.15	14.22	13.60	13.91	13.67	13.51	11.29	10.86	n.a.
Italy	16.29	14.19	12.70	10.00	10.00	9.94	9.74	9.66	9.60	9 60	9.60
Netherlands	5.63	5.88	5.69	5.81	6.37	5.94	5.87	5.44	5.31	5.31	4.75
Spain	15.27	12.27	9.52	8.26	8.37	6.94	7.67	n.t.	9.61	10.40	9.59
Sweden	11.75	11.83	12.49	9.05	9.20	10.25	10.80	10.31	9.25	9.16	8.60
United Kingdom	9.04	9.33	11.49	11.01	10.79	10.59	10.46	9.54	9.39	8.68	8.96
Australia	8.54	12.27	19.40	15.49	14.91	16.64	16.32	15.47	14.00	13.10	n.a.
Japan	4.91	4.91	4.91	2.89	2.89	2.89	2.89	2.38	2.38	2.38	2.38
New Zealand	7.80	13.50	17.62	16.44	19.69	22.36	25.38	24.70	25.29	19.48	n.a.
South Africa	18.43	21.94	12.99	8.62	8.84	8.77	8.78	8.26	8.60	8.96	8.64
Brazil	179.15	273.03	379.77	33.00	149.00	276.40	n.t.	n.t.	n.t.	n.a.	n.a.
Mexico	53.78	48.67	72.98	103.77	104.03	104.64	104.83	100.66	99.01	98.60	98.40
Philippines	15.99	47.14	16.45	11.32	n.a.	n.a.	7.71	11.76	11.80	n.a.	n.a.
Singapore	2.59	2.91	2.94	1.93	2.10	2.19	1.67	1.93	2.12	2.61	2.63

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1983	1984	1985	1986		1987					
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
United States	9.89	8.34	8.01	5.96	8.04	6 97	6.24	6.70	6.96	7.12	7.10
Canada	9.85	10.00	9.40	8.35	8.35	7.45	7.40	6.90	8.15	8.30	8.45
Belgium	11.15	10.85	9.89	7.50	7.60	7.86	7.81	7.50	7.40	7.25	7.00
France	12.19	10.69	9.12	7.60	8.37	8.50	8.25	7.87	8.00	8.12	8.12
Germany	6.30	5.75	4.80	4.65	4.85	3.90	3.85	3.85	3.80	3.65	3.65
Ireland	12.19	15.13	12.00	14.44	14.06	14.12	14.25	13.37	10.87	11.19	n.a.
Italy	17.88	16.88	15.13	11.12	11.37	11.37	11.12	10.12	10.00	10.50	11.00
Netherlands	6.00	5.75	5.75	5.81	6.19	5.44	5.50	5.55	5.31	5.25	5.25
Portugal	24.11	24.57	20.71	15.93	16 07	14.95	14.94	14.95	14.96	15.03	n.a.
Spain	19.00	12.21	10.51	11.52	11.79	12.35	12.60	14.60	17.09	19.80	18.29
Switzerland	3.88	5.00	4.75	4.00	4.50	3.75	4.00	3.87	3.75	3.87	3.81
United Kingdom	9.31	9.88	12.75	11.44	11.25	11.12	10.19	10.06	9.25	9.00	9.25
Australia	9.05	12.90	19.75	15.90	15.10	16.40	16.60	16.27	14.50	13.80	n.a.
Japan	6.45	6.33	7.03	4.43	4.34	4.22	3.96	3.98	3.89	3.70	3.75
New Zealand	11.75	15.00	20.00	16 50	24.25	23.60	25.15	25.60	25.70	20.35	n.a.
South Africa	19.12	22.78	13.35	8.90	8.55	9.20	9.05	8.40	9.10	9.00	8.80
Chile	20.68	20.68	22.42	20.98	19.56	25.34	25.34	23.87	22.42	28.32	14.03
Hong Kong	14.88	8.25	6.50	4.44	4.62	3.44	4.37	4 87	5.50	6.25	6.87
Indonesia	19.50	19.00	15.00	14.50	19.50	16.50	16.00	17 00	16.50	18.00	27.00
Korea	8.00	8.00	8.00	8 00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Malaysia	9.80	10.30	8.20	6 70	6.00	5.30	3.30	2.60	2.70	2.80	2.75
Philippines	15.61	33.21	14.61	10.31	8.31	8.34	7.05	8.72	10.05	n.a.	n.a.
Singapore	8.44	7.00	5.88	3.19	3.94	3.34	3.31	3.26	3.73	4.44	4.31
Taiwan	8.07	7.85	4.10	2 86	n a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Thailand	16.00	12.00	15.50	7 75	7.75	7.75	7.75	7.75	7.75	7.75	7.75

Commercial bank deposit rates

at or near end of month

	1983	1984	1985	1986		1987					
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
United States	9.70	8.35	7.75	5.78	6.30	6.00	6.13	6.30	6.80	7.06	6.90
Canada	9.82	10.05	9.40	8.30	8.15	7.50	7.40	7.00	8.25	8.45	8.50
Austria	6.50	7.50	6.50	5.37	5.50	5.12	4.75	4.50	4.37	4.15	4.15
Belgium	11.25	10.63	9.63	7.37	7.44	7.75	7.69	7.37	7.19	7.00	6.56
Denmark	6.00	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Finland	5.25	5.25	4.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	n.a.
France	7.66	7.04	6.12	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Germany	5.90	5.25	4.40	4.60	4.80	4.70	3.90	3.95	3.95	3.85	3.75
Ireland	11.75	14.63	11.87	14.12	13.75	14.00	14.00	13.25	10.75	11.00	n.a.
Italy	13.25	11.64	11.85	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Netherlands	6.13	5.69	5.81	5.69	6.06	5.31	5.37	5.37	5.25	5.12	5.12
Norway	12.75	12.75	12.00	15.00	15.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	21.50	28.00	20.00	n.a.	n.a.	15.00	15.00	14.50	14.50	14.50	n.a.
Spain	12.62	11.64	9.64	8.65	8.67	8.54	8.57	8.58	8.60	8.87	n.a.
Sweden	11.70	11.45	12.18	9.85	9.93	10.30	11.00	10.75	9.75	10.00	9.00
Switzerland	3.50	4.50	4.50	3.75	4.25	3.50	3.75	3.62	3.50	3.62	3.56
United Kingdom	9.31	9.68	11.75	11.25	11.19	11.00	10.59	9.84	9.25	8.81	9.25
Australia	10.40	12.75	18.80	15.73	15.56	15.73	16.62	16.19	15.21	14.42	n.a.
Japan	6.40	6.38	7.05	4.65	4.55	4.16	4.17	4.20	4.11	3.88	3.96
New Zealand	11.75	15.25	19.98	19.00	23.50	22.72	23.70	23.30	23.85	20.00	n.a.
South Africa	20.13	22.88	13.20	9.25	8.65	9.50	9.25	8.75	9.15	9.25	9.00
Argentina*	14.50	31.23	5.40	7.97	8.41	8.81	4.43	4.86	7.17	7.81	7.96
Brazil**	23.00	27.00	18.00	85.00	220.00	400.00	32.00	30.00	24.00	n.a.	n.a.
Chile	20.57	20.68	23.60	20.27	20.98	26.97	27.42	24.31	25.93	30.30	18.72
Hong Kong	14.88	8.25	6.50	4.44	4.62	3.44	4.37	4.87	5.50	6.25	6.87
Korea	7.60	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Malaysia	7.75	9.58	7.00	6.42	6.33	4.83	4.66	2.33	2.43	2.35	2.42
Mexico	57.15	47.45	72.90	94.30	94.30	94.30	94.30	94.30	94.30	94.30	94.30
Philippines	14.96	31.01	12.34	9.55	n.a.	n.a.	6.68	6.13	7.96	n.a.	n.a.
Singapore	7.44	6.13	5.26	3.13	3.63	3.19	3.32	3.32	3.63	n.a.	n.a.
Taiwan	7.00	6.50	5.25	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Thailand	10.00	13.00	10.50	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75
Venezuela	12.00	12.50	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00

*Percent per month.

**Spread above monetary correction until Feb 86; nominal rate of interest until Jan 87; spread above LBC rate thereafter.

Domestic government bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986		1987					
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
United States	12.00	11.61	9.49	7.69	7.79	7.47	7.48	7.81	8.45	8.65	8.50
Canada	12.02	11.66	10.04	9.26	9.23	8.94	9.10	8.98	9.82	9.92	9.78
Austria	8.02	8.04	7.61	7.36	7.33	7.25	7.05	6.93	6.86	6.74	6.61
Belgium	11.89	11.56	9.60	7.41	7.70	7.57	7.57	7.64	7.66	7.76	7.82
Denmark	12.96	14.60	9.67	11.80	11.70	11.33	12.63	12.23	11.96	11.87	12.06
Finland	11.16	10.73	10.58	7.74	7.80	7.78	7.82	7.89	7.77	7.88	7.85
France	13.96	12.70	11.33	9.49	9.89	9.54	9.84	9.42	9.51	9.86	10.40
Germany	8.38	7.17	6.57	6.33	6.25	6.20	6.26	6.12	5.98	5.99	6.31
Ireland	14.25	14.90	11.84	13.49	13.97	12.97	11.16	12.41	n.a.	n.a.	n.a.
Italy	17.69	14.52	13.66	10.33	10.05	9.78	9.84	10.03	10.08	10.20	10.41
Netherlands	8.58	7.72	6.96	6.30	6.40	6.21	6.15	6.22	6.12	6.07	6.26
Norway	12.50	12.00	13.10	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	22.11	22.23	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	17.25	13.93	12.30	10.29	10.36	10.74	10.59	10.95	12.04	13.43	13.20
Sweden	12.30	12.04	12.11	10.35	10.66	11.70	11.23	10.70	11.07	11.77	11.37
Switzerland	4.53	4.60	4.42	4.07	4.05	3.93	4.01	4.04	4.03	4.10	4.06
United Kingdom	9.94	10.25	10.35	10.58	10.17	10.64	9.51	9.15	8.87	8.79	9.15
Australia	13.65	13.50	14.85	13.60	13.40	13.80	14.00	13.45	13.05	12.97	n.a.
Japan	6.94	6.30	5.82	4.73	4.61	4.25	3.96	3.72	3.42	3.38	3.91
New Zealand	10.50	16.90	17.00	16.00	16.00	16.20	16.60	16.30	15.95	15.65	n.a.
South Africa	13.64	16.55	18.09	14.13	15.06	15.33	15.30	14.66	15.30	15.70	15.60
Philippines	14.47	18.54	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.a.	n.a.
Venezuela	13.50	14.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

Commercial bank lending rates to prime borrowers

at or near end of month

	1983	1984	1985	1986		1987					
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
United States	11.00	10.75	9.50	7.50	7.50	7.50	7.50	7.50	7.75	8.25	8.25
Canada	11.00	11.25	10.00	9.75	9.75	9.25	9.25	8.75	9.25	9.50	9.50
Austria	9.25	9.25	9.00	9.00	9.00	9.00	8.75	8.75	8.75	8.75	8.50
Belgium	13.75	14.00	11.50	9.75	9.75	10.75	10.25	9.75	9.75	9.25	9.25
Denmark	10.00	10.50	8.50	8.00	8.00	9.50	10.00	10.00	10.00	10.00	9.50
Finland	10.18	10.68	10.37	8.74	8.81	8.81	8.80	8.84	8.86	n.a.	n.a.
France	12.25	12.00	10.60	9.45	9.45	9.45	9.45	9.45	9.45	9.45	9.45
Germany	7.75	7.75	7.25	6.75	6.75	6.75	6.25	6.25	6.25	6.25	6.25
Ireland	13.75	15.75	12.50	15.75	15.75	15.75	15.75	15.75	15.25	14.25	n.a.
Italy	18.75	18.00	15.88	13.00	13.00	13.00	13.00	12.50	12.50	12.50	12.50
Netherlands	7.00	6.25	6.25	6.12	7.12	6.12	5.75	5.87	5.75	5.62	5.62
Norway	13.50	13.00	12.40	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	30.00	29.00	22.50	17.50	17.50	17.50	17.50	19.50	19.50	19.50	n.a.
Spain	17.31	15.84	14.75	14.23	14.22	14.24	14.24	14.57	15.23	16.21	n.a.
Sweden	13.50	14.50	15.05	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
Switzerland	6.00	6.00	6.00	5.75	5.75	5.25	5.25	5.25	5.00	5.00	5.00
United Kingdom	9.00	9.50	11.50	11.00	11.00	11.00	11.00	10.00	9.50	9.00	9.00
Australia	12.75	14.00	21.00	18.50	18.25	18.00	18.25	18.25	17.50	16.80	n.a.
Japan	5.69	5.70	5.71	4.45	4.35	4.28	4.24	4.12	4.00	4.00	n.a.
New Zealand	11.00	14.00	21.00	18.50	18.50	24.00	25.00	27.00	29.00	22.50	n.a.
South Africa	20.00	24.00	16.50	13.50	12.00	12.50	12.50	12.50	12.50	12.50	12.50
Argentina*	15.50	32.05	7.30	8.85	11.30	9.85	5.45	5.71	9.20	8.50	9.65
Brazil**	24.00	31.00	19.00	88.00	250.00	440.00	45.00	40.00	37.00	n.a.	n.a.
Chile	30.90	80.82	33.34	29.13	29.13	33.57	36.07	34.48	36.07	40.27	30.91
Hong Kong	13.50	11.00	7.00	6.50	6.50	5.00	5.00	6.00	6.50	6.50	7.50
Indonesia	19.75	23.50	18.75	18.25	19.75	20.50	19.50	19.50	19.25	19.75	26.00
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Malaysia	11.00	12.00	10.50	10.50	10.00	9.00	9.00	9.00	8.50	8.50	7.75
Mexico	59.44	47.54	65.66	94.19	95.33	95.69	96.20	96.25	95.79	94.79	93.76
Philippines	18.00	44.00	15.00	11.00	10.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	5.98	9.40	7.20	6.10	6.10	6.10	6.10	6.10	6.10	6.10	6.10
Taiwan	10.25	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Thailand	16.00	16.50	15.50	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
Venezuela	18.00	16.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00

*Percent per month.

**Spread above monetary correction until Feb 86; nominal rate of interest until Jan 87; spread above LBC rate thereafter.

Domestic corporate bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986		1987					
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
United States	12.63	12.25	10.15	8.86	8.88	8.50	8.55	8.65	9.60	9.55	9.55
Canada	12.89	12.42	10.74	10.21	10.18	9.67	9.90	9.79	10.44	10.44	10.46
France	14.35	12.94	11.76	9.77	10.18	9.92	10.06	9.79	9.72	10.05	10.38
Germany	8.30	7.20	6.90	6.60	6.50	6.50	6.40	6.60	6.50	6.40	6.50
Netherlands	8.51	7.51	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Norway	13.25	12.75	14.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	20.07	18.32	14.92	13.61	13.40	13.72	14.13	14.82	15.52	15.76	16.39
Sweden	12.21	12.33	13.25	11.72	11.99	13.00	12.63	12.15	12.15	12.89	12.47
Switzerland	4.92	5.09	4.93	4.71	4.72	4.62	4.56	4.58	4.57	4.56	4.56
United Kingdom	11.57	11.64	11.47	11.43	11.71	11.30	10.56	10.21	10.09	10.19	10.15
Japan	7.49	7.11	6.79	6.05	5.93	5.46	5.35	5.20	4.99	4.71	n.a.
Korea	14.20	15.00	13.60	12.70	12.80	12.80	12.70	13.00	13.00	12.70	12.70
Venezuela	18.00	18.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00

World Financial Markets

Published by
Morgan Guaranty Trust Company of New York
International Economics Department
23 Wall Street, New York, NY 10015

Member, Federal Deposit Insurance Corporation   Printed in U.S.A.

9/16/87 B6200-2

World Financial Markets

Morgan Guaranty Trust Company of New York

August 1987

Non-oil commodity prices: trends and implications, 1
- Perspective on recent price developments, 2
- Maturing industrial economies, 4
- Technological change, 5
- Policy interventions, 7
- Outlook and implications, 9

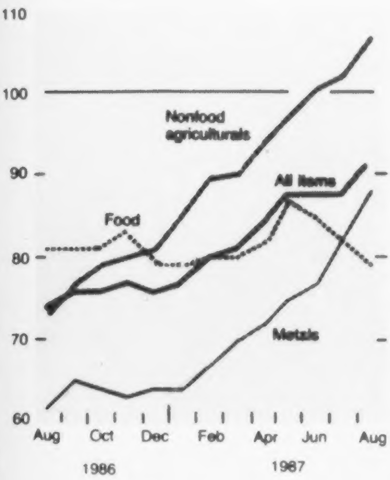
Statistical appendix, 11

Chart 1

Nominal non-oil commodity prices

Economist *dollar index*

1980 = 100



Non-oil commodity prices: trends and implications

Non-oil commodity prices have risen substantially since the beginning of this year. By August, the *Economist* dollar index of commodity prices (which excludes oil and precious metals)* had risen by 19% from December 1986, and nearly 23% above its low of August 1986 (see Chart 1). With food and beverage commodity prices down slightly since end-1986, the increase in the overall index came from a rise in industrial raw material prices, with metals up about 38% and nonfood agricultural commodities up 32%.

Financial markets have focused on the implications of the recent upturn for inflation and interest rates. Monetary authorities in several major countries have expressed concern, and some members of the Federal Reserve Board indicated the rise in commodity prices was a consideration in their moderate tightening of policy earlier this year. Although farmers have little to cheer about, producers of industrial commodities, especially metals, are hoping for relief from the relentless decline in prices that began in the early 1980s; by early 1987 that decline had brought many prices in real terms, that is relative to world manufactures prices, to their lowest point since the Great Depression. For primary-commodity-exporting countries, the prolonged fall in commodity prices that preceded the recent upturn severely depressed their terms of trade, setting back growth and development, and contributed to the debt-servicing difficulties.

This year's upturn in industrial raw material prices may signal a shift in inflation expectations, but it does not represent the onset of sustained, cost-push pressures arising from the world's commodity producers. The fundamental demand/

---

*The *Economist* all-items dollar index is based on spot prices for 31 commodities, weighted according to the value of OECD imports (excluding intra-EC trade in commodities affected by the common agricultural policy) in 1981-83. Some other widely used non-oil commodity price indices give a different reading on the extent of this year's price increase, reflecting alternative commodity baskets and weights. For example, the Commodity Research Bureau spot market index, which covers 23 commodities that are weighted equally, rose 11% in the first eight months of this year. The IMF index of nonfuel primary commodity prices in dollar terms, which covers 34 commodities (iron ore, tobacco, and phosphate rock, in addition to those included in the *Economist* index) and is weighted according to shares in 1979-81 world export earnings, shows an increase of 8% between December 1986 and July 1987. Using weights based on developing-country exports only, the increase was less than 4%, compared with 12% with industrial-country export weights. Much of this difference stems from substantially larger weights in the developing-country index for beverages and sugar, prices of which have been particularly weak.

supply imbalances that have depressed primary commodity prices since 1980 still are present, if somewhat diminished in the case of metals. Prices of food commodities — especially grains, oilseeds, and sugar — are likely to continue falling in real terms until there are major changes in industrial countries' farm support programs, which have generated huge domestic surpluses and intense price competition for export markets. For metals, considerable excess capacity still exists to keep a lid on prices, even though a gradual working down of excessive inventories and an absence of significant net additions to world capacity in recent years has made the outlook less bleak. Moreover, modest industrial-country economic growth, shifts in structure of these economies, and changes in technology will continue to dampen demand for most industrial raw materials, while lowering and flattening supply curves. Thus, even though higher current industrial raw material prices may be sustained for a while, the medium-term outlook is for no better than a leveling out of average prices in real terms.

This outlook is hardly encouraging for commodity-dependent countries. They will have to continue adjusting to deteriorating, or at best stagnant, terms of trade. As individual producers, they could each try to exploit their respective comparative advantage by increasing the efficiency and volume of primary commodity output and enlarging export market shares, but in the aggregate this tends to perpetuate excess supply conditions and further depress prices. Reduction of dependence on commodities through diversification into production and export of manufactures represents a desirable course of action. However, this avenue will not guarantee strong export-led growth, as newcomers will face a crowded field of established industrial-country and NIC competitors as well as like-minded diversifiers. New developing-country exporters of manufactures also face protectionist barriers in industrial-country and NIC markets. Nonetheless, the diversification effort should prove worthwhile, as it has for countries that previously moved in this direction. The outward-looking policies required, including increased reliance on market signals, are likely to improve the efficiency of resource allocation within their economies, thereby enhancing growth prospects.

While self-help efforts are indispensable, growth prospects and external payments performance of commodity-dependent developing countries will continue to hinge heavily on the macroeconomic and farm policies of the major industrial countries. Stronger and better-balanced economic growth and agricultural policy reforms in industrial countries would trim unemployment, narrow trade imbalances, and reduce the high costs of farm support programs to taxpayers and consumers, as well as benefit commodity-dependent developing countries.

Perspective on recent price developments

A number of factors contributed to the recent run-up in non-oil commodity prices, which has been confined to industrial raw materials. A general rise in inflation expectations triggered speculative buying and inventory accumulation of precious metals as well as industrial raw materials in anticipation of future price increases. Inflation expectations have been affected by the partial recovery of oil prices over the past year — initially in response to OPEC efforts to limit production and more recently in reaction to the intensification of Middle East political tensions. The rise in

Table 1

World stocks of major agricultural commodities

as percent of consumption

	Average 1975-1980	*1985*	*1986*	*Proj. 1987*
Major oilseeds	13	17	19	18
Coarse grains	13	24	28	26
Wheat	21	28	29	30
Sugar	30	45	43	42

Table 2

World metal stocks

as percent of consumption

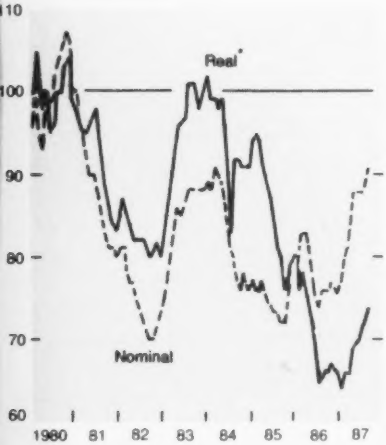
	1980	*1982*	*1985*	*1986*
Primary aluminum	14	23	15	12
Refined copper	11	18	11	9
Nickel	29	31	16	16
Tin	6	26	32	24
Zinc	12	13	9	9

Chart 2

Non-oil commodity prices

Economist *all items dollar index*

1980 = 100



*Nominal prices deflated by OECD manufactures prices in dollar terms

commodity price indices themselves also appears to have reinforced inflation expectations. In North America concerns that falling unemployment and rising industrial capacity utilization rates portend tightness in certain labor and product markets increase inflation anxieties. Another key influence has been dollar depreciation. In addition to its price-boosting effects in the United States, the dollar's decline lowered local-currency costs of commodities priced in dollars for European and Japanese consumers, thereby tending to boost demand.

The major difference in inventory positions between foods and metals makes prices of the latter much more sensitive to short-term shifts in demand. World food stocks have reached record high levels, far in excess of normal working and reserve requirements (see Table 1). In contrast, surplus stocks of most nonferrous metals that accumulated in the 1981-82 recession gradually have been worked off over the past three years (see Table 2). Some of the latest drawdowns in producer stocks of metals, however, may represent shifts to industrial user inventories, rather than declines in overall stocks.

Reduced stock levels have made metal prices particularly sensitive to several recent temporary supply disruptions. Strikes in North America this year have reduced the output of lead, zinc, and copper from a few large mines and smelters. Other labor disputes are pending. Temporary supply factors also have affected world stocks and prices of nonfood agricultural raw materials during the past crop year. For example, poor weather in South and Southeast Asia lowered output of jute and rubber, causing supply tightness in both markets. World acreage and production of cotton fell sharply, largely in response to earlier record stocks and low prices, while world demand has been unexpectedly strong, reflecting shifts in consumer preferences toward natural fibers as well as the same low prices. Spot prices for a number of industrial raw materials, especially metals, cotton, and lumber, are substantially above long-dated futures prices, suggesting markets ascribe some of the recent run-up to temporary factors and expect higher prices to lead to reactivation of idle production capacity.

Recent non-oil commodity price developments also should be put into a longer-term perspective (see Chart 2). Despite this year's 19% rise, prices still are more than 9% below their average level in 1980, and relative to world manufactures prices are virtually unchanged from last year's average level and close to 26% below that of 1980. Metals prices are more than 12% lower than in 1980, although agricultural raw material prices, on the strength of recent rises in cotton, wool, and timber, are now 7% above their 1980 peak. In relation to world manufactures prices, metals prices are about 28% below their average level in 1980, and those of agricultural raw materials are down 13% from the beginning of the decade. After rising briefly earlier this year, the dollar prices for food commodities fell to their lowest level since 1982 and now stand more than 20% below the 1980 peak in nominal terms and nearly 36% lower in real terms.

Underlying the weakness of commodity prices during the 1980s has been sluggish demand and abundant supply. World consumption of nonfuel primary commodities grew only 1.5% a year during 1980-86, or about half the rate recorded during the 1970s. This reduced consumption growth can be ascribed partly to lower rates of economic growth during the 1980s. OECD real GNP growth slowed to an average 2.3% per annum, from 3.4% in the 1970s

Table 3

Economic growth and commodity consumption

average annual percent change

	1970-79	*1980-86*
Real GNP growth		
Industrial countries	3.4	2.3
United States	2.8	2.2
Japan	5.2	3.8
Europe	3.3	1.6
Developing countries	6.0	3.3
*World consumption of nonfuel primary commodities**	3.1	1.5
Food commodities	3.9	2.0
Beverages	1.3	1.4
Agricultural raw materials	2.1	2.4
Metals	3.6	0.0

*Weighted by importance in world trade.
Source: IMF, *Primary Commodities*, May 1987.

Table 4

Capacity utilization in primary metals

percent

	Annual averages			
	1977-1981	*1982-1983*	*1984-1986*	*Latest 1987*
United States				
Mining	91	81	81	76 Jul
Nonferrous metals	83	68	80	80 Jun
Iron and steel	81	53	66	68 Jun
Canada	88	65	76	78 Q1
European Community	n.a.	n.a.	78	78 Q1
Germany	n.a.	68	81	79 Q2

(see Table 3); and, on present policies, is unlikely to average better than 2.5% for the remainder of the decade. This lower growth has particularly affected demand for primary metals and minerals, of which industrial countries account for close to three-quarters of world imports. Likewise, a reduction in developing country economic expansion from an average of 6% annually in the 1970s to 3.3% thus far in the 1980s has slowed primary commodity consumption growth.

Continued reduction in the intensity of use of industrial commodities also has dampened demand, especially for metals. World consumption of metals was no higher in 1986 than in 1979, even though OECD real GNP increased by 16% over that period. This was partly a response to high real prices of non-oil commodities and sharp increases in energy costs during the 1970s, as well as to concerns about the depletion of natural resources.

World supply of nonfuel primary commodities grew by 2.1% annually during 1980-86, equaling the rate of increase in the previous decade and outpacing the average rate of consumption growth by nearly 40%. Continued heavy commitment of resources to agricultural production, despite sluggish world demand, nearly doubled world stocks of food commodities during 1980-86. By and large, the problem is centered in the industrial economies where farm policies severely distort markets, although increased food output in the three most heavily populated developing countries — China, India, and Indonesia — during the 1980s led to near self-sufficiency and contributed to global food surpluses.

In metals and minerals, strong demand and high prices in the 1970s induced large investment in additional capacity worldwide, much of which was just coming on stream when industrial-country growth slowed abruptly during 1981-82 and demand for metals fell. As a result, capacity utilization rates in metals industries dropped sharply (see Table 4). Continued weak demand and low prices forced considerable restructuring and rationalization of existing capacity, particularly in North America, but also spurred more efficient production technologies in both new and old facilities. Moreover, some mine and plant closures were only temporary. On balance, production costs of most metals are significantly lower than in 1980, and global capacity continues to expand albeit much more slowly than in the 1970s.

Maturing industrial economies

Structural shifts within industrial countries related to high incomes and advanced stages of development have been key factors behind the slowing demand for many commodities. In these economies, which account for a large portion of world industrial raw material consumption, the share of industrial production in GDP declined from 40% to 36% during the past 20 years as the importance of services increased. Manufacturing output alone fell from 30% to 23% of GDP; moreover, within manufacturing, output has shifted away from traditional raw-materials-intensive sectors toward high technology and information-based products. These shifts in the composition of aggregate output have lowered demand growth for most industrial commodities relative to overall economic growth.

Demand for food and certain other commodities is approaching saturation levels in the industrial countries. For example, per capita food consumption in the United States has risen only 0.5% annually over the past 15 years despite 1.7% annual growth in real per capita in-

Chart 3

U.S. food consumption and real GNP, per capita

1970 = 100

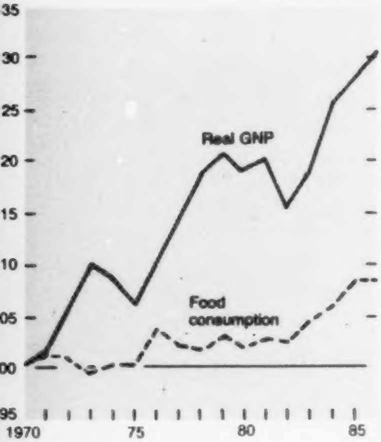
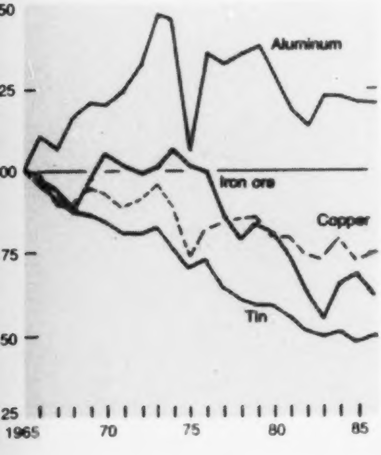


Chart 4

Intensity of metals use

world consumption per unit of GNP

1965 = 100



come (see Chart 3). By the 1980s, the same sluggish growth trend in per capita food consumption prevailed in most other industrial economies. Looking forward, demand growth will continue to depend mainly on population growth, which in industrial countries has already declined from an average of 0.9% a year between 1965 and 1980 to 0.6% thus far in the 1980s, and is projected to slow further.

Technological change

Because of its effects on both demand and supply, technological change is perhaps the single most important factor affecting commodity markets. Looking at the impact on demand, several dimensions stand out. First, new materials have effected broad substitution away from traditional commodities, particularly metals. Materials substitution has been driven both by cost and technical factors that affect product quality and performance. With lower weight and often higher strength, plastics and composite materials have replaced steel, copper, and other metals in many end-uses ranging from construction and packaging to transportation. Common but important examples include PVC pipes in place of copper for plumbing, and plastics instead of steel in automobile body panels and bumpers. Optical fibers outperform copper in telecommunication cables. Some advanced materials contain metals but often in low volume, such as in ceramics, various composites, and metallic alloys.

Synthetics likewise have slowed the demand for many agricultural products, more nonfood than food. Man-made substances have replaced cotton, wool, and other natural fibers; nylon has substituted for rubber in tires; and artificial sweeteners have made inroads in the sugar market. However, innovations such as the stay-pressed process for cotton fabrics and new weaves and blends for wool and cotton textiles have partly reversed this type of substitution.

Second, demand for commodities also has been lessened by new materials-saving technologies in production processes and by improved products that contain reduced amounts of primary inputs for the same quantity of final output, often with better quality. For example, tin-plating thicknesses have been reduced and new steel-making techniques afford higher yields and less waste. Changing product characteristics and widespread downsizing are illustrated by major efforts in the automobile industry since the first oil shock to reduce weight in order to raise energy efficiency. The weight of the average U.S.-produced automobile has decreased 15%, or 550 pounds, since 1974 mostly through downsizing but also through the use of advanced high-strength, low-alloy steels and plastics in place of carbon steel. While downsizing may be reaching limits, an even larger weight reduction is projected over the next five years with increased use of lighter materials that use less primary inputs.

Finally, improved technologies for secondary recovery also have cut into demand for primary output of many minerals and metals. Examples include the electric arc furnace (EAF) steel-making process that uses mainly sponge iron and scrap as feedstock rather than iron ore, and new processes for recycling aluminum that achieve purity levels nearly equal to those found in primary production. The impact of these technological changes, together with the effects of structural demand shifts in maturing economies, are the major factors in the declining intensity of use of metals and minerals (see Chart 4).

Table 5

World grain yields

tons per hectare; average for period

	1961-65	*1971-75*	*1981-85*
Wheat	1.2	1.6	2.1
Coarse grains	1.4	1.9	2.3
Rice (paddy)	2.0	2.4	3.1
Total grains, weighted average	1.3	1.8	2.2

Turning to supply, technological change has been a driving force behind increases in productivity, and thus lower costs, in the production of many commodities ranging from metals to agricultural. New technologies have raised the efficiency in the extraction and production of most metals, contributing to lower and flatter industry supply curves. For example, a solvent extraction/electrowinning process produces refined copper from low-grade ores at about half the cost of the conventional concentrating/smelting method. In the steel industry, increased use of new processes such as continuous casting, direct reduction, and EAF have significantly raised yields and lowered costs, saving not only materials but also energy and manpower.

Technological change in agriculture historically has shifted supply curves outward. Significant in recent decades has been the continual development and application of improved varieties and chemical inputs that boosted yields and reduced costs in most field and tree crops and in livestock. World grain yields, for example, increased by 24% between the first halves of the 1970s and 1980s, following a 31% rise the preceding decade (see Table 5). Efficiency gains in livestock production in industrial countries have been even greater. In U.S. agriculture, productivity growth alone has outpaced food consumption during the past two decades.

Wider application of existing technologies will continue to affect world commodity markets for some time. Despite considerable restructuring in world metals industries in recent years, large scope remains for upgrading of remaining high-cost capacity. Moreover, the transfer of new materials technologies to developing countries, even with a lag, will change fundamentally patterns of demand for some metals as their economies grow and develop — so-called leapfrogging. China's joint venture to produce optical fiber cables suggests the intensity of copper use there will never reach the levels attained in the industrial countries at similar stages of development. In agriculture, the transfer of existing technologies has been extensive in some crops and some regions, but much of Africa and some Asian countries including China have yet to adopt modern farm technologies on a large scale.

Technological change, of course, is an ongoing process which, if anything, could accelerate. New developments in materials science and commercial applications in processes and products will lead to further substitution away from metals. The recent advances in superconductivity offer the potential to transform certain metals-consuming industries ranging from power generation and transmission to transportation, although large-scale commercial applications seem some years away. In agriculture, traditional research methods will continue to raise productivity through products such as recently developed hybrid cotton with a much shorter growing season that promises to revolutionize the industry. However, the greatest potential in agricultural research lies in the new biotechnology fields. The commercial impact of these emerging technologies has already begun in products such as growth hormones that boost milk yields by 20%. For field crops, the potential reportedly will take longer to develop; in the meantime, yield increases for major crops are expected to keep pace with historical trends. However, the U.S. Office of Technology Assessment projects that over the next 30 years the emerging technologies will help raise productivity growth in U.S. agriculture above the 1.5% average annual rate of the past 20 years.

Table 6

European Community net imports

minus sign indicates net exports

	Annual averages		
	1970-71	1980-81	1985-86
In million metric tons			
Total grains	18.0	4.1	—15.6
Sugar	1.0	—3.5	—2.7
As percent of world imports			
Total grains	16	2	—8
Sugar	6	—15	—12

Table 7

Domestic producer and consumer prices relative to world prices, 1980-82

weighted average prices for 7 major farm commodities, world market prices = 100

	Producer prices	Consumer prices
Australia	104	109
Canada	117	116
European Community	154	156
Other Europe	184	181
Japan	244	208
New Zealand	100	100
United States	116	117
Industrial-country average	140	143

Source: World Bank.

Policy interventions

World agricultural markets have been particularly distorted by policy interventions in industrial countries, to the point that world prices for some commodities are driven more by political than market considerations. Government price-support and protection policies, designed largely to stabilize and enhance farm incomes, have encouraged excess production and inhibited the transfer of resources out of agriculture into other sectors. The resulting overproduction and overcapacity have led to large surpluses and depressed prices. Indeed, the recent, intense competition for export markets via subsidies has pushed world prices of many food commodities well below the production costs of even the most efficient producers.

Apart from depressing world prices, farm support programs in the industrial countries have distorted world trade. A prime example is the European Community, which had been a large net importer of most foods in the 1960s but became a net exporter of many agricultural commodities in the 1980s (see Table 6). This shift came at the expense of more efficient producers in the rest of the world, including many developing countries with true comparative advantage in agriculture.

While farmers in industrial countries have benefited from support programs, taxpayers and consumers have borne the costs. The direct budgetary costs of farm price and income support in Japan, the EC, and the United States reached record highs last year, a combined total exceeding $60 billion, up from $23 billion in 1980. The burden on consumers, which varies according to the actual methods of farm support, has been highest in Europe and Japan where variable import levies and other import barriers keep domestic prices well above world prices. This has depressed the domestic demand for some commodities such as dairy products, sugar, and beef whose consumer prices ranged two to four times higher than world prices. In contrast, consumer prices of food in the United States are mostly in line with world prices. Table 7 illustrates the relative levels of price distortions to producers and consumers in the industrial countries in 1980-82.

The sharp rise in budgetary outlays for farm support programs during the 1980s, and the increased trade friction among industrial countries resulting from ever-higher agricultural surpluses, have focused attention on the need for reform. The EC recently lowered some price support levels slightly, and, under great pressure from the United States and other exporters, shelved a proposal to tax edible oils that would have increased protective barriers substantially. However, the measures taken to date by the EC have been modest. Even with the slight reduction in price supports, the EC Commission has projected that within five years grain stocks will increase threefold to 100 million tons. EC production controls apply only to dairy and sugar. In its Food Security Act of 1985, the United States set progressively lower commodity-loan rates and thus market prices over a five-year period to stimulate exports and reduce burdensome stocks. It also increased acreage-set-aside requirements to reduce production and further stock buildup. But the legislation maintained deficiency payments to support farm incomes, which encouraged resources to remain in the sector. The net effects of the changes were to increase budgetary costs while lowering stocks and production somewhat. By effectively lowering world prices, the U.S. farm legislation has raised the budgetary and opportunity costs of EC and

Japanese farm programs.

Recognition of the need for agricultural reform led to an agreement for negotiations in the GATT Uruguay Round to improve the competitive environment in agriculture by increasing discipline in the use of subsidies. The G-7 participants reaffirmed their commitment to reform at the Venice summit, calling for cuts in farm support to allow market signals to influence the orientation of agricultural production. In July, the United States accelerated the discussion in a proposal to GATT to eliminate all subsidies and protection in world agriculture by the year 2000.

Yet, despite the pressures and rhetoric for reform, resistance to change is strong and the upcoming negotiations are likely to yield only slow progress at best. Those countries with inefficient farm sectors and high protection levels that would face major structural adjustments under reform are predictably the most resistant. For example, the EC insists on maintaining producer subsidies and a dual price system that insulates consumers from world prices. A major issue for the Community is the fact that structural adjustment would exacerbate the already high unemployment problem because 9% of the labor force is engaged in agriculture, versus less than 3% in the United States. Judging from reactions to the U.S. proposal, the risk is that current levels of farm support and protection might be locked in rather than reduced over time. A recent OECD report on agricultural policies and trade concluded that, in the absence of policy reforms or successive weather failures, "markets for the major temperate zone agricultural products will be characterized by widespread and lasting surpluses over the next ten years."

In contrast, agricultural policies in the developing countries have generally discouraged production and encouraged resources to leave the agricultural sectors, resulting in increased import dependence for food and fiber despite natural comparative advantage in production in many instances. The most prevalent bias against farmers has come through government purchase and distribution of food at low prices in the interest of their urban consumers. Likewise, producer returns for export crops in some countries have been depressed by export taxes or the operations of marketing boards. In addition, protectionist policies designed to promote industrialization and persistent overvaluation of exchange rates in many developing economies have helped to turn the internal terms of trade against their agricultural sectors. As a partial offset, governments often have subsidized farm inputs and invested in rural infrastructure, most importantly in irrigation.

There have been exceptions, however. After years of rigid controls in agriculture, China shifted to an incentives policy in 1978 that reformed the organization, pricing and marketing, and labor allocation within the rural areas, and quickly resulted in sharp production increases of all crops. Most growth came through higher productivity of land and labor largely by using existing resources more efficiently, not through new technologies. In India and Indonesia, more gradual but nevertheless supportive agricultural and macroeconomic policies — high levels of public investment in infrastructure and green revolution technologies, rational price policies, and appropriate exchange rate policies — increased output and reduced costs of basic foodgrains and many export commodities. In the aggregate, these three countries which had been large net importers of grain during the 1970s and early 1980s approached self-sufficiency by the mid-1980s.

With similar macro and sectoral policy reforms plus new technologies, most developing countries could greatly expand their agricultural production and thus rural and national incomes. The current depressed food prices caused by industrial-country policies present a dilemma for developing countries: whether to take advantage of cheap food imports and let domestic agriculture stagnate, or to insulate domestic producers with, for example, variable import levies, to encourage agricultural development and self-sufficiency. The latter would tend to exacerbate world surpluses.

Government intervention in minerals and metals has been more limited than in agricultural markets. Now that the tin cartel has collapsed, the main exception is the protection afforded to steel producers in industrial countries which has slowed the decade-long restructuring efforts in that industry and thus contributed to global excess capacity and downward pressure on world prices. Tougher environmental regulations have affected some metals markets in the industrial countries by raising the costs of, or in some cases prohibiting, domestic production, but they also have increased the importance of secondary recovery.

Resource-rich developing countries, many with balance of payments problems, have actively encouraged the development of new mines and processing facilities, directly through public-sector investment and indirectly through tax incentives for the private sector. Contrary to popular perception and criticism, many of these so-called social producers are the world's most efficient. Chile is the lowest-cost copper producer; Brazil is among the lowest in iron ore, steel, and tin. Despite global overcapacity, developing countries will continue to pursue expansionary policies in minerals and metals because of foreign exchange needs and because these projects are economical even at depressed prices.

Outlook and implications

The foregoing analysis of the fundamental demand and supply forces affecting non-oil commodity prices indicates the chances of a resurgence of world inflation emanating from commodity-producing sectors in the intermediate future are slim. Prices of industrial raw materials are unlikely to continue rising at the rapid pace recorded earlier this year, and probably will recede from recent levels in the absence of a further rise in oil prices or further substantial dollar weakness. Food commodity prices will remain depressed. Relative to dollar prices of manufactures, prices of many primary commodities could continue to trend down for several more years, or at best level out.

While the outlook for non-oil commodity prices over the medium term is for a continued weak trend in real terms, there may be considerable short-run volatility in nominal dollar terms in response to oil price movements, dollar exchange rate changes, shifts in general inflation expectations, or temporary supply disruptions. However, the huge stocks of many food commodities will clearly dampen any upside price tendencies in response, for example, to weather-related reductions in production, or to marginal changes in agricultural policies. Industrial raw material prices, especially metals, are likely to be more volatile now that stock levels have been reduced, thereby increasing short-run price sensitivity to shifts in demand or temporary supply difficulties. Even though there is substantial excess productive capacity

Table 8

Terms of trade

1980=100

	1965	*1973*	*1984*	*1986*
Non-oil commodity-exporting countries	131	128	91	89
Argentina	162	122	94	69
Brazil	156	147	92	92
Chile	178	234	84	81
Malaysia	103	77	86	69
Peru	119	69	93	68
Philippines	187	165	87	92
Thailand	135	160	85	88
Australia	144	175	95	80
New Zealand	139	158	96	82

Table 9

Developing countries' share of world primary commodities exports

percent

	1969-71	*1979-81*	*1984-86*
Total	59	50	51
Food	55	45	47
Beverages	100	100	100
Cereals	22	18	21
Sugar	72	67	65
Fats & oils	32	40	45
Agricultural nonfood	81	71	75
Cotton	68	45	57
Timber	95	93	86
Metals & minerals	52	48	48
Copper	61	60	64
Iron ore	47	49	51
Aluminum	33	29	28

Source: World Bank.

for many industrial materials, output tends to be unresponsive to higher prices in the very short run. However, if these higher prices persist for long, excess capacity will be brought on line, with subsequent price dampening effects.

For primary-commodity-exporting countries, the outlook for continued weakness of non-oil commodity prices over the medium term, especially relative to world manufactures prices, implies a further deterioration in their terms of trade. As a group, they experienced a decline in their overall terms of trade of more than 11% between 1980 and 1986. Several industrial countries that are major exporters of commodities, such as Australia and New Zealand, also experienced significant worsening of their terms of trade (see Table 8).

Many commodity-exporting countries have offset some of the adverse impact of terms-of-trade deterioration by expanding export volumes. For certain commodities, they did this partly by regaining during the 1980s some of the share of world export markets lost during the 1970s, although in the aggregate market share gains were negligible (see Table 9). Despite high export volumes their total export earnings from major commodities last year were still nearly 18% below 1980. Developing countries' net trade position in food commodities also has deteriorated substantially, as consumption growth outpaced production. Their net grain imports, for example, rose to an average of more than 85 million tons annually during the latest three-year period, from less than 43 million tons a year in the early 1970s.

Weak commodity prices and related terms-of-trade deterioration have had and will continue to have depressing effects on the overall export and economic growth performance of countries dependent on primary commodity exports. These conditions will make it difficult for those with serious debt problems to grow their way out of them. Many countries with economic structures based largely on primary production have little alternative, at least in the near term, to expanding their commodity output as a means of achieving economic growth. The benefits of increasing food production for the domestic market, at least, accrue to their respective countries in the form of either higher incomes for the producers or lower prices for consumers. Scarce foreign exchange also may be saved. In the case of commodities produced for export, there will be circumstances involving an individual commodity or an individual producer where investing to expand production for export could yield positive results. Investments that improve the efficiency of existing primary commodity production, and thereby free resources for other sectors of the economy, also can be beneficial. However, if all primary commodity exporters expand their output the result would be to exacerbate excess supplies and further depress prices and export revenues.

Thus, it behooves commodity-exporting countries to diversify their economies into the production and export of manufactures. Those developing countries that already have moved in this direction and have significantly reduced their dependence on primary commodity exports generally have fared better during the 1980s. Their terms of trade have improved, export volume gains have been greater, and economic growth has been higher.

Diversification can take the form of advanced processing of the primary commodities as well as development of new areas of manufacturing. However, export-led growth will not come easily to those who diversify. Although the income and price elasticities of demand for manufactures exports are much higher than for primary commodities, sluggish industrial-country growth and a variety of protectionist trade barriers also confront LDC manufactures exports. Moreover, countries attempting to diversify into manufacturing must compete for market share with established producers in industrial countries and the NICs, as well as with other countries also seeking to diversify their exports.

Even if diversification does not produce strong, export-led growth, the policies required for establishing manufacturing activities that are internationally competitive will be beneficial in terms of improving the general efficiency of resource allocation and thus internally generated growth. Indeed, realistic exchange rates and trade liberalization, two critical policies in any outward-looking development strategy, are likely to benefit commodity-producing sectors as well as manufactures-exporting activities. All too often developing countries have saddled their commodity-exporting sectors with overvalued exchange rates and heavy tax burdens, as well as high cost inputs resulting from import barriers designed to protect domestic industry.

Beyond this, stronger growth and agricultural policy reform in industrial countries hold the key to easing the difficulties faced by developing countries heavily dependent on commodity exports. In virtually every international forum, industrial countries have been called upon to adopt policies to strengthen economic growth while reducing their trade imbalances. Implementation, however, remains inadequate to narrow significantly the huge trade imbalances among industrial countries, while developing-country commodity exports continue to be adversely affected by the demand and price dampening effects of slow overall industrial-country growth.

Likewise, in the area of agricultural production and trade, there is growing recognition that the domestic farm support programs of industrial countries not only impose increasingly heavy costs on their own taxpayers and consumers, but also adversely affect trade and growth in developing countries. The recent U.S. proposal in the current GATT negotiations for a phased elimination of all agricultural subsidies and import barriers over the next ten years has challenged other countries to join in undertaking radical reform in this critical area. The political costs of ending subsidies and liberalizing trade unilaterally are unacceptable, but the United States has offered to put all its domestic farm support programs on the negotiating table, with the aim of achieving an international breakthrough toward liberalizing agricultural trade and allowing market price signals to determine producer decisions. Initial reactions suggest the EC and Japan are not ready for such radical change. Even partial movement along the lines proposed by the United States could bring important benefits to developing countries in the form of reducing the disincentives to domestic production that arise from artificially depressed world prices and providing opportunities for expanded commodity exports. Analyses that simulate a phased liberalization of industrial-country agricultural policies indicate that significant net benefits would eventually accrue to developing countries. According to one very recent unpublished study that assumed complete liberalization along the lines of the recent U.S. proposal, once industrial-country surplus stocks are worked down, world market prices for food commodities in real terms would recover, although not all the way back to their early 1980s level. In combination with much larger export volumes and increased production for domestic consumption, developing countries could eventually improve their annual food trade balance by as much as $40 billion, turning from net importers to net exporters. Moreover, the U.S. agricultural trade surpluses would rise substantially at the expense of Europe, which would revert to being a sizable net food importer, thereby helping narrow trade imbalances among major industrial countries.

Statistical appendix

For key to data in tables see April 1987 issue.

Effective exchange rates — industrial countries, 12

Real effective exchange rates — developing countries, 13

International banking market size, 13

International bond issues and bank credits, 14

Eurocurrency deposit rates, 15

International bond yields, 15

Central bank discount rates, 16

Day-to-day money rates, 16

Treasury bill rates, 17

Representative money market rates, 17

Commercial bank deposit rates, 18

Domestic government bond yields, 18

Commercial bank lending rates to prime borrowers, 19

Domestic corporate bond yields, 19

Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates — industrial countries

Index numbers, 1980-82 average=100.

Nominal against 15 other industrial-country currencies

		United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Neth-erlands	Spain	Swit-zerland	Den-mark	Norway	Swe-den
1981		99.5	100.2	105.8	104.0	100.4	97.2	98.8	102.1	98.9	101.8	97.1	99.4	98.3	99.2	100.1	103.3
1982		109.8	99.4	98.6	100.1	93.1	102.8	92.8	98.1	101.7	92.3	102.7	94.1	106.3	95.7	101.7	92.8
1983		114.2	100.8	107.8	92.0	87.3	107.6	90.3	91.6	103.6	90.0	105.0	78.4	111.5	96.4	99.4	82.2
1984		122.4	97.3	113.0	94.2	84.4	107.4	86.7	88.1	103.6	88.9	104.0	77.4	110.5	93.9	97.8	84.3
1985		127.1	92.8	115.8	76.3	85.4	107.8	82.1	88.2	104.2	89.5	104.0	75.6	109.5	95.0	95.6	83.9
1986		106.0	87.6	150.1	61.4	87.4	116.1	82.9	80.7	107.8	92.9	110.3	73.4	118.1	99.7	89.3	81.6
1987																	
January		98.5	88.1	156.1	57.2	87.4	122.2	84.0	74.8	110.4	95.9	114.9	71.9	121.7	103.9	83.8	79.9
February		96.9	89.7	156.4	57.2	87.9	122.7	83.9	74.8	110.7	96.4	115.0	71.3	121.4	104.6	84.4	80.0
March		96.0	90.5	157.9	58.3	87.3	121.7	83.3	76.1	110.3	95.7	114.1	71.1	121.4	103.7	84.8	80.6
April		94.0	90.2	165.9	59.1	87.2	121.4	82.9	78.8	110.0	95.5	114.1	71.1	123.0	103.2	85.3	80.6
May		93.5	88.4	168.2	58.7	87.1	121.7	82.1	79.8	110.1	95.6	114.3	71.4	123.8	103.6	85.8	80.4
June		94.8	88.8	164.7	59.9	87.1	121.6	81.8	79.1	110.2	95.6	114.3	71.9	122.7	103.4	86.5	80.5
July		96.0	90.0	159.1	60.0	87.2	121.4	81.6	79.2	110.2	95.4	114.2	72.5	122.2	102.4	87.2	80.4
July	*24*	96.5	90.1	157.9	60.3	87.1	121.2	81.5	79.2	110.1	95.3	114.1	72.7	122.3	102.3	87.3	80.4
	31	96.4	89.6	159.6	59.4	87.2	121.3	81.5	78.9	110.1	95.4	114.1	72.9	122.5	102.3	87.0	80.4
August	*7*	96.8	90.6	159.2	59.9	86.9	121.1	81.3	78.5	110.1	95.2	114.1	73.2	122.2	102.1	87.3	80.2
	14	97.2	90.0	159.5	60.2	86.7	121.1	81.3	78.9	110.1	95.0	114.0	73.1	121.9	100.9	87.4	80.4
	21	95.2	89.6	164.3	59.8	86.8	121.4	81.6	79.2	110.1	95.2	114.2	73.6	122.5	100.9	87.3	80.2
	28	94.1	90.0	166.8	59.3	86.9	121.6	81.6	78.8	110.1	95.3	114.3	74.2	123.5	101.2	87.1	80.1

Real against 15 other industrial-country currencies

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Neth-erlands	Spain	Swit-zerland	Den-mark	Norway	Swe-den
1981	100.8	99.5	104.8	102.6	100.0	96.9	98.9	102.5	99.4	101.4	97.1	99.6	98.7	98.9	101.3	101.9
1982	109.3	100.6	92.4	105.7	97.3	99.9	98.5	98.8	101.2	91.9	100.5	99.0	103.0	97.9	103.2	95.6
1983	112.7	102.6	96.8	101.9	94.7	101.0	101.1	93.1	102.0	88.6	100.8	88.9	105.1	100.4	102.0	90.7
1984	119.6	100.2	97.8	106.4	97.0	98.0	101.8	90.2	103.0	85.9	97.8	91.1	100.1	99.2	100.5	96.0
1985	122.5	96.5	96.6	89.5	100.5	96.7	100.2	92.8	103.3	85.3	96.6	92.5	98.0	101.2	99.5	96.9
1986	101.5	93.4	119.2	78.9	103.9	103.4	102.6	87.4	106.6	84.6	101.4	94.0	105.6	107.5	97.1	96.0
1987																
February	93.2	96.0	120.6	77.9	104.0	107.9	104.7	82.6	109.4	86.2	105.3	94.0	109.0	112.1	98.6	95.6
March	92.5	96.5	121.0	79.9	105.7	106.3	103.7	86.1	109.0	85.2	105.0	93.4	108.8	112.3	98.6	95.8
April	90.5	96.6	126.3	81.4	105.7	105.9	103.3	87.0	108.7	84.6	105.3	93.8	110.2	111.9	99.9	95.5
May	90.0	95.3	127.6	81.3	105.9	106.6	101.5	88.4	108.7	83.3	105.7	94.7	111.0	112.4	101.1	95.4
June	91.3	95.7	124.9	83.1	105.8	106.4	101.7	87.4	108.6	83.3	104.8	95.1	110.6	112.3	103.8	95.5
July	92.5	97.0	119.5	84.5	106.9	106.5	101.3	87.6	108.7	82.8	102.5	96.3	110.7	110.7	105.7	95.5

Real against 18 other industrial-country and 22 LDC currencies

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Neth-erlands	Spain	Swit-zerland	Den-mark	Norway	Swe-den
1981	99.8	99.4	104.7	102.5	99.5	96.2	98.2	102.0	98.9	100.9	96.6	98.9	98.0	98.7	101.3	101.6
1982	109.6	101.8	94.0	105.2	96.9	99.3	98.1	98.5	101.1	91.6	99.5	98.9	102.6	97.7	103.0	95.4
1983	114.9	104.6	100.4	102.1	94.4	100.6	100.8	93.0	102.1	88.2	99.5	89.2	105.1	100.3	101.9	90.9
1984	120.8	102.7	102.4	106.7	96.4	96.8	101.0	89.7	102.7	85.0	95.9	91.3	99.8	99.0	100.5	95.7
1985	124.0	99.2	101.6	90.1	100.0	95.8	99.8	92.3	102.9	84.5	94.8	93.2	97.8	101.2	99.8	96.8
1986	107.1	94.5	124.0	80.8	104.5	104.5	104.1	88.2	107.4	85.1	101.4	96.5	107.5	108.0	97.9	96.8
1987																
February	100.3	96.7	125.2	79.9	105.4	110.6	107.5	84.3	111.2	87.6	106.6	97.8	112.4	113.2	99.7	97.0
March	99.5	97.1	125.6	81.9	107.1	108.9	106.4	87.8	110.6	86.5	106.1	97.1	111.9	113.3	99.7	97.1
April	97.4	97.0	130.7	83.3	107.0	108.4	105.9	88.7	110.2	85.9	106.3	97.5	113.2	112.8	100.9	96.8
May	96.6	95.4	131.8	83.3	107.1	109.0	104.0	90.2	110.3	84.6	106.7	98.3	114.0	113.5	102.3	96.9
June	98.0	96.1	129.4	84.7	107.0	108.7	104.3	89.1	110.1	84.6	105.8	98.9	113.6	113.3	104.9	96.9
July	99.1	97.5	123.9	85.7	108.2	108.8	104.0	89.3	110.3	83.9	103.4	100.1	113.6	111.8	106.7	97.0

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1981	107.8	103.3	108.3	100.6	114.4	103.3	99.7	98.9	99.8	100.3	99.4	101.2	102.0	101.8	99.3	104.7
1982	77.0	112.9	97.3	105.9	82.9	104.6	110.2	101.6	111.7	101.9	105.6	106.7	100.8	96.6	108.6	96.0
1983	71.5	86.2	89.2	104.9	78.8	98.4	117.2	95.8	96.3	97.6	113.9	96.1	101.8	94.5	120.8	93.5
1984	80.1	85.7	90.1	99.6	91.8	105.8	86.0	100.2	96.0	96.5	119.7	107.9	102.4	97.1	119.5	91.1
1985	71.2	85.1	79.7	85.7	90.5	96.3	93.0	104.2	94.8	89.2	116.4	114.6	95.7	94.6	106.8	91.5
1986	61.0	74.5	68.7	67.7	65.1	93.8	86.0	94.9	71.7	75.8	94.6	90.2	80.3	88.7	100.9	71.1
1987																
January	56.3	76.0	65.6	65.7	60.8	107.8	47.1	91.1	56.1	74.1	90.3	87.6	76.5	88.4	94.6	63.8
February	55.6	71.8	66.2	66.2	61.2	111.2	47.7	90.6	56.0	73.8	90.7	85.0	74.8	88.8	93.5	63.4
March	53.4	71.3	66.7	65.7	62.1	113.1	47.5	91.6	55.1	73.8	90.3	84.5	74.2	89.2	94.6	64.1
April	53.1	75.5	65.9	64.8	62.2	115.7	47.2	90.7	53.6	73.5	90.7	83.8	73.1	89.7	95.1	63.5
May	53.2	75.9	66.1	63.4	63.1	118.6	47.5	90.9	53.9	74.1	89.4	81.2	73.4	92.5	95.2	63.1
June	54.4	67.4	66.8	64.0	62.7	123.2	48.5	92.5	54.8	75.8	90.1	81.3	74.0	95.6	96.4	63.2
July	51.3	65.5	68.2	63.9	65.2	122.5	49.3	92.0	56.2	77.7	91.8	84.4	76.0	98.6	97.1	62.1

International banking market size

at end of period, billions of dollars

	1981	*1982*	*1983*	*1984*	*1985*	*1986*			
					Dec	*Mar*	*Jun*	*Sep*	*Dec*
Gross claims									
Eurocurrencies, on residents and nonresidents	**1 929**	**2 146**	**2 253**	**2 359**	**2 833**	**2 947**	**3 040**	**3 347**	**3 560**
On nonbanks	557	634	665	694	822	854	875	914	938
On banks	1 372	1 512	1 588	1 665	2 011	2 093	2 165	2 433	2 622
In dollars	1 504	1 694	1 797	1 894	2 101	2 138	2 166	2 381	2 534
In other currencies	425	452	456	465	732	809	874	966	1 025
Domestic currencies, on nonresidents	**365**	**398**	**402**	**402**	**506**	**535**	**578**	**633**	**672**
On nonbanks	128	132	140	142	187	186	201	211	209
On banks	237	266	262	260	319	349	377	422	463
In dollars	188	211	221	215	215	203	210	219	227
In other currencies	177	187	181	187	291	332	368	414	445
Total	**2 294**	**2 544**	**2 655**	**2 761**	**3 339**	**3 482**	**3 618**	**3 980**	**4 232**
On nonbanks	685	766	805	836	1 009	1 040	1 076	1 125	1 147
On banks	1 609	1 778	1 850	1 925	2 330	2 442	2 542	2 855	3 085
In dollars	1 692	1 905	2 018	2 109	2 316	2 341	2 376	2 600	2 761
In other currencies	602	639	637	652	1 023	1 141	1 242	1 380	1 470
Gross liabilities									
Eurocurrencies, to residents and nonresidents	**1 954**	**2 168**	**2 278**	**2 386**	**2 846**	**2 964**	**3 059**	**3 384**	**3 579**
To nonbanks	372	432	479	497	585	610	632	660	685
To official monetary institutions	112	91	88	96	112	106	109	110	109
To other banks	1 470	1 645	1 711	1 793	2 149	2 248	2 318	2 614	2 786
In dollars	1 539	1 741	1 846	1 950	2 147	2 166	2 204	2 425	2 553
In other currencies	415	427	432	436	699	798	855	959	1 026
Domestic currencies, to nonresidents	**263**	**250**	**260**	**280**	**377**	**394**	**418**	**464**	**494**
To nonbanks	74	70	73	80	114	121	121	121	116
To banks	189	180	187	200	263	273	297	343	377
In dollars	126	116	135	146	169	166	171	191	192
In other currencies	137	134	125	134	208	228	247	273	302
Total	**2 217**	**2 418**	**2 538**	**2 666**	**3 223**	**3 358**	**3 477**	**3 848**	**4 073**
To nonbanks	446	502	552	577	699	731	753	781	801
To banks and official institutions	1 771	1 916	1 986	2 089	2 524	2 627	2 724	3 067	3 272
In dollars	1 665	1 857	1 981	2 096	2 316	2 332	2 375	2 616	2 745
In other currencies	552	561	557	570	907	1 026	1 102	1 232	1 328
Net market size	**1 155**	**1 285**	**1 382**	**1 430**	**1 676**	**1 735**	**1 800**	**1 910**	**1 980**

International bond issues and bank credits

millions of dollars

	1984	*1985*	*1986*	*1987*			*Jan-Jun*	
				Apr	*May*	*Jun*	*1987*	*1986*
By country of borrower								
Industrial countries	**177 077**	**226 711**	**270 231**	**22 634**	**14 887**	**16 307**	**119 680**	**129 266**
Australia	5 816	14 407	20 106	922	883	1 057	5 935	9 045
Austria	2 254	2 435	3 581	156	233	305	2 279	2 129
Belgium	1 847	3 269	4 952	468	543	401	2 455	2 741
Canada	13 124	17 184	21 633	891	680	1 386	5 759	9 062
Denmark	4 825	3 589	9 633	224	400	246	3 748	2 219
Finland	1 713	1 846	3 445	417	359	151	2 118	1 358
France	11 298	18 773	19 701	1 071	696	804	8 047	7 581
Germany	2 165	3 452	11 927	433	683	737	6 654	5 667
Greece	1 551	1 587	1 317	—	400	166	676	664
Ireland	1 377	1 881	4 179	682	144	100	1 039	1 563
Italy	6 933	11 033	12 962	332	982	610	3 884	7 873
Japan	17 526	21 269	35 508	5 862	1 904	3 990	21 696	15 793
Netherlands	1 973	2 299	3 579	304	371	409	2 566	1 693
New Zealand	3 208	2 707	8 078	354	140	139	2 707	3 274
Norway	1 324	3 905	6 644	146	300	204	3 559	2 184
Portugal	1 796	2 382	2 433	—	582	336	1 302	1 612
South Africa	1 422	825	—	—	—	—	—	—
Spain	4 931	3 913	7 015	130	205	139	896	2 884
Sweden	11 256	9 890	8 020	274	356	690	3 579	5 949
United Kingdom	8 899	25 424	24 295	6 132	2 034	1 181	16 798	10 847
United States	65 054	69 193	56 774	3 608	2 665	2 930	21 399	32 319
*Other**	6 785	5 447	4 448	227	327	324	2 582	2 806
Developing countries	**39 725**	**32 139**	**24 317**	**8 957**	**1 869**	**919**	**16 137**	**13 959**
Latin American countries	**17 464**	**8 115**	**3 192**	**7 750**	**170**	**113**	**8 638**	**1 497**
Argentina	4 212	3 700	17	—	—	—	—	17
Brazil	6 649	—	219	—	—	—	—	—
Chile	784	1 085	—	—	—	—	—	—
Colombia	589	1 052	89	50	—	—	50	—
Mexico	3 918	109	313	7 700	—	—	7 700	50
Venezuela	—	48	—	—	—	—	—	—
*Other***	1 312	2 121	2 554	—	170	113	888	1 430
Asian countries	**15 893**	**18 410**	**15 291**	**856**	**1 509**	**532**	**5 798**	**8 830**
India	945	818	1 721	56	155	55	805	725
Indonesia	1 924	451	1 358	346	24	—	620	983
Korea	6 201	5 898	3 134	—	547	52	1 374	2 229
Malaysia	2 605	2 219	1 328	83	—	83	250	452
Philippines	925	925	—	—	—	—	—	—
Thailand	1 221	1 497	1 401	69	—	40	209	1 044
Other	2 072	6 602	6 350	303	783	302	2 540	3 397
Middle Eastern and African countries	**6 368**	**5 613**	**5 834**	**351**	**189**	**274**	**1 701**	**3 632**
Algeria	821	1 450	1 344	76	3	—	154	797
Nigeria	985	—	—	—	—	—	—	—
Turkey	741	1 203	2 637	200	141	260	1 113	1 322
Other	3 821	2 960	1 853	75	45	14	434	1 513
Eastern European countries	**3 244**	**5 236**	**4 091**	**338**	**169**	**100**	**1 756**	**2 219**
Hungary	1 386	1 577	1 315	138	—	—	714	821
Soviet Union	1 051	1 489	1 821	200	169	—	662	1 248
*Other****	807	2 169	955	—	—	100	380	150
International organizations******	**13 287**	**20 635**	**18 916**	**1 430**	**611**	**1 372**	**9 367**	**9 134**
By type of instrument and currency								
International bond issues	**107 411**	**167 756**	**226 393**	**16 427**	**12 515**	**14 137**	**101 573**	**110 372**
Eurobonds	79 458	136 731	187 952	14 397	10 399	12 176	86 276	91 771
U.S. dollar	63 593	97 782	118 220	6 201	2 899	5 104	31 805	55 530
German mark	4 604	9 491	16 870	329	976	834	9 643	9 294
British pound	3 997	5 766	10 510	1 110	1 678	1 272	9 430	6 670
Japanese yen	1 212	6 539	18 673	4 205	2 189	2 583	17 145	7 819
European composite units	3 032	7 038	6 965	432	760	693	5 262	4 370
Other	3 020	10 114	16 713	2 121	1 897	1 689	12 991	8 088
Foreign bonds	27 953	31 025	38 441	2 030	2 116	1 962	15 297	18 601
U.S. dollar	5 487	4 655	6 064	200	—	—	1 750	2 664
German mark	2 243	1 741	—	—	—	—	—	—
British pound	1 292	958	322	—	—	—	—	321
Swiss franc	12 626	14 954	23 401	1 413	1 385	1 512	10 301	11 115
Japanese yen	4 628	6 379	4 756	104	432	209	1 726	3 091
Other	1 677	2 339	3 898	313	300	241	1 519	1 409
International bank credits	**125 922**	**116 964**	**91 164**	**16 932**	**5 019**	**4 561**	**45 368**	**44 207**
Eurocurrency credits	112 605	110 317	82 755	16 293	4 471	3 967	41 612	40 765
Foreign credits	13 317	6 647	8 409	639	548	594	3 756	3 441
Total	**233 333**	**284 720**	**317 556**	**33 359**	**17 534**	**18 698**	**146 941**	**154 579**

*Includes multinational organizations. **Includes unallocated. ***Includes COMECON institutions. ****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1983	*1984*	*1985*	*1987*						
	Dec	*Dec*	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*
Eurodollar										
overnight	9.50	8.63	12.25	6.00	5.87	6.25	6.50	6.69	6.44	n.a.
one month	9.69	8.38	8.00	6.06	6.31	6.44	6.69	7.12	6.94	6.75
three months	9.81	8.63	7.88	6.12	6.31	6.50	7.00	7.25	7.06	7.00
six months	10.06	9.13	7.88	6.12	6.31	6.56	7.25	7.44	7.25	7.25
twelve months	10.38	9.81	7.94	6.12	6.37	6.69	7.62	7.94	7.62	7.69
Euro-Canadian dollar										
one month	9.13	9.88	9.00	7.37	7.12	6.87	7.37	7.87	8.06	8.94
three months	9.50	10.81	9.00	7.37	7.25	6.87	8.25	8.12	8.19	9.12
six months	9.75	10.06	9.00	7.37	7.44	6.94	8.62	8.44	8.37	9.56
twelve months	10.00	10.44	9.00	7.50	7.62	7.06	8.87	8.87	8.69	9.87
Euro-French franc										
one month	12.13	10.69	12.50	8.81	8.31	8.19	8.12	8.00	8.06	7.81
three months	12.19	10.69	13.00	8.87	8.44	8.25	8.25	8.19	8.37	8.12
six months	12.31	11.00	13.13	8.81	8.44	8.31	8.31	8.37	8.56	8.56
twelve months	12.63	11.38	12.25	8.81	8.44	8.31	8.50	8.62	9.00	9.12
Euromark										
one month	5.25	5.50	4.75	4.00	3.94	3.87	3.81	3.75	3.62	3.87
three months	5.88	5.50	4.75	4.12	4.00	3.87	3.81	3.75	3.81	3.94
six months	6.13	5.56	4.75	4.12	4.00	3.87	3.87	3.75	3.81	4.12
twelve months	6.38	5.56	4.81	4.19	4.12	4.00	4.00	3.87	3.87	4.00
Euro-Dutch guilder										
one month	5.81	5.69	5.75	5.44	5.31	5.31	5.19	5.06	5.19	5.25
three months	6.00	5.75	5.75	5.31	5.31	5.31	5.19	5.06	5.19	5.31
six months	6.25	5.81	5.81	5.19	5.25	5.31	5.19	5.12	5.19	5.37
twelve months	6.38	5.94	5.88	5.19	5.25	5.31	5.19	5.12	5.19	5.44
Euro-Swiss franc										
one month	3.38	4.44	3.88	3.25	4.19	3.25	3.25	4.25	3.69	3.62
three months	3.75	4.56	4.00	3.19	3.94	3.69	3.69	3.87	3.81	3.81
six months	3.94	4.63	4.00	3.31	3.87	3.69	3.69	3.87	3.81	3.94
twelve months	3.94	4.69	4.06	3.62	3.94	3.75	3.81	3.87	3.87	4.00
Eurosterling										
one month	9.13	9.50	11.69	11.06	11.12	10.00	9.44	8.87	9.12	9.00
three months	9.31	9.88	11.81	11.00	10.69	9.81	9.25	8.81	9.19	9.44
six months	9.50	10.00	11.81	10.87	10.37	9.69	9.12	8.81	9.19	9.69
twelve months	9.81	10.19	11.69	10.75	10.31	9.62	9.12	9.06	9.31	10.06
Euroyen										
one month	6.25	6.19	7.13	4.37	4.56	3.94	3.94	4.00	3.81	3.62
three months	6.31	6.19	6.56	4.25	4.25	4.00	3.94	3.87	4.00	4.06
six months	6.38	6.13	6.50	4.12	4.12	4.00	3.87	3.87	4.00	4.12
twelve months	6.44	6.13	6.38	4.06	4.06	4.00	3.94	3.94	4.06	4.25
European currency unit										
one month	8.81	9.25	9.63	7.62	7.44	7.16	6.94	6.69	6.56	6.62
three months	9.19	9.38	9.63	7.56	7.44	7.16	6.94	6.87	6.75	6.19
six months	9.44	9.50	9.63	7.50	7.44	7.16	7.00	7.00	6.94	6.94
twelve months	9.63	9.63	9.63	7.50	7.37	7.19	7.19	7.12	7.12	7.12

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years at or near end of month

	1984	*1985*	*1986*	*1987*						
	Dec	*Dec*	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*
United States companies										
Eurodollar	11.25	9.68	8.67	8.70	8.71	8.78	9.53	9.78	10.11	9.82
Euromark	6.95	6.73	6.62	6.64	6.60	6.56	6.59	6.57	6.65	7.04
Swiss franc	5.73	5.49	5.70	5.67	5.64	5.68	5.55	5.52	5.50	5.57
European governments										
Eurodollar	12.04	10.52	9.91	9.85	10.03	10.08	11.00	11.24	11.14	11.22
Euromark	7.39	7.03	6.77	6.64	6.70	6.50	6.33	6.35	6.36	6.55
Swiss franc	5.24	4.91	4.51	4.40	4.35	4.37	4.27	4.34	4.33	4.33
European currency unit	10.64	10.23	10.20	10.38	10.37	10.26	13.07	10.32	10.51	10.40

Central bank discount rates

at or near end of month

	1984	1985	1986	1987					Current	
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug 31 1987	effective since
United States	8.00	7.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	Aug 21, 86
Canada	10.09	9.49	8.47	7.05	8.33	8.44	8.54	9.22	9.24	Aug 27, 87
Austria	4.50	4.00	4.00	3.50	3.50	3.50	3.50	3.50	3.50	Jan 23, 87
Belgium	11.00	9.75	8.00	8.00	8.00	7.75	7.50	7.25	7.25	Jul 23, 87
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.50	9.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	May 19, 86
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.50	4.00	3.50	3.00	3.00	3.00	3.00	3.00	3.00	Jan 23, 87
Ireland	14.00	10.25	13.25	13.25	12.75	11.75	11.25	10.25	10.25	Jul 16, 87
Italy	16.50	15.00	12.00	11.50	11.50	11.50	11.50	11.50	12.00	Aug 28, 87
Netherlands	5.00	5.00	4.50	4.50	4.50	4.50	4.50	4.50	4.50	Mar 7, 86
Norway	8.00	8.00	8.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Jun 6, 83
Portugal	25.00	19.00	16.00	15.00	15.00	15.00	15.00	15.00	15.00	Mar 23, 87
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	9.50	10.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	Sep 19, 86
Switzerland	4.00	4.00	4.00	3.50	3.50	3.50	3.50	3.50	3.50	Jan 22, 87
United Kingdom	9.38	11.31	10.81	9.81	9.31	8.87	8.87	8.87	9.87	Aug 7, 87
Japan	5.00	5.00	3.00	2.50	2.50	2.50	2.50	2.50	2.50	Feb 23, 87
New Zealand	13.50	19.80	24.60	28.20	28.40	21.35	20.00	n.a.	20.00	Jun, 87
South Africa	21.75	13.50	10.00	10.00	10.00	10.00	10.00	10.00	10.00	Dec 10, 86
Argentina*	18.19	5.00	11.19	6.25	9.00	9.00	10.50	12.80	12.80	Jul, 87
Korea	5.00	5.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 86
Philippines	12.11	11.50	9.64	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Dec, 86
Singapore	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Jul, 85
Thailand	12.00	11.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Sep 1, 86
Venezuela	11.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	Mar, 85

*Percent per month.

Day-to-day money rates

monthly averages

	1983	1984	1985	1986	1987						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	9.47	8.38	8.27	6.71	6.43	5.45	6.13	6.37	6.85	6.73	6.58
Canada	8.78	10.50	9.23	8.28	8.03	7.22	7.16	7.10	7.41	8.35	8.53
Austria	5.75	7.63	7.25	7.62	4.25	4.25	4.12	4.25	3.80	3.95	4.10
Belgium	7.39	9.12	6.60	5.09	7.75	6.90	5.83	5.65	5.60	5.65	5.65
Finland	16.70	15.07	11.96	11.97	11.99	11.76	11.44	11.14	11.00	11.00	11.00
France	12.27	10.95	9.02	7.80	8.90	8.36	7.89	7.91	8.02	8.01	7.46
Germany	5.61	5.62	4.64	5.00	4.24	3.83	3.84	3.75	3.69	3.61	3.70
Ireland	12.19	14.50	9.62	13.00	13.36	13.94	13.75	13.25	12.00	11.00	9.00
Italy	17.88	17.25	14.75	11.42	11.88	11.81	11.22	10.56	10.25	10.78	n.a.
Netherlands	5.84	5.60	5.75	6.19	6.20	5.31	5.56	5.19	5.20	5.19	5.25
Norway	12.30	12.50	12.50	14.00	14.00	14.00	14.00	14.00	14.00	14.00	n.a
Spain	16.98	12.18	9.92	11.76	12.21	12.47	14.43	17.32	20.18	18.12	18.09
Sweden	11.52	11.88	11.83	8.89	9.09	11.73	12.02	8.70	8.00	8.00	8.50
Switzerland	1.88	1.50	2.00	1.12	1.00	1.00	1.00	1.75	1.37	2.25	2.00
United Kingdom	7.78	6.31	9.72	9.19	11.06	10.88	10.30	9.61	8.78	9.16	8.78
Australia	4.55	10.98	18.37	15.40	15.73	16.22	16.05	14.71	13.45	12.79	12.06
Japan	6.44	6.41	8.02	4.18	4.09	4.05	3.85	3.52	3.16	3.16	3.17
South Africa	16.06	21.13	12.50	8.50	9.00	8.50	8.37	8.31	8.37	8.00	8.56
Argentina*	14.65	17.75	4.50	7.00	7.00	4.00	5.32	5.50	6.00	8.00	9.00
Brazil	184.69	272.02	352.23	83.05	270.00	412.00	406.00	853.00	n.a.	n.a.	n.a.
Hong Kong	13.90	6.80	6.10	3.90	2.78	1.97	3.76	4.11	4.20	6.45	5.33
Korea	11.40	10.00	8.80	9.00	8.50	8.60	8.80	8.40	8.50	8.90	8.90
Philippines	31.18	15.22	15.03	n.a.	n.a.	6.44	13.79	13.29	n.a.	n.a.	n.a.
Singapore	7.05	6.01	4.53	3.51	3.10	3.22	2.24	3.31	4.39	2.57	3.33
Taiwan	7.65	8.07	4.50	3.00	3.25	3.25	3.10	3.50	3.50	3.50	5.50

*Percent per month.

Treasury bill rates

bond equivalent yields, at or near end of month

	1983	1984	1985	1986	1987						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	9.28	7.99	7.25	5.73	5.66	5.48	5.76	5.61	5.82	5.90	6.11
Canada	9.71	9.84	9.24	8.22	7.24	7.28	6.80	8.08	8.19	8.29	8.97
Belgium	11.00	10.90	9.89	7.50	7.99	7.86	7.50	7.35	7.15	6.84	6.74
Ireland	12.01	15.10	11.15	13.60	13.91	13.67	13.51	11.29	10.86	10.46	9.56
Italy	16.29	14.19	12.70	10.00	9.94	9.74	9.66	9.60	9.60	9.60	10.53
Netherlands	5.63	5.88	5.69	6.37	5.94	5.87	5.44	5.31	5.31	4.75	5.25
Spain	15.27	12.27	9.52	8.37	6.94	7.67	n.t.	9.61	10.40	9.59	8.61
Sweden	11.75	11.83	12.49	9.20	10.25	10.80	10.31	9.25	9.16	8.60	9.11
United Kingdom	9.04	9.33	11.49	10.79	10.59	10.46	9.54	9.39	8.68	8.96	9.14
Australia	8.54	12.27	19.40	14.91	16.64	16.32	15.47	14.00	13.01	12.23	12.04
Japan	4.91	4.91	4.91	2.89	2.89	2.89	2.38	2.38	2.38	2.38	2.38
New Zealand	7.80	13.50	17.62	19.69	22.36	25.38	24.70	25.29	19.48	n.a.	n.a.
South Africa	18.43	21.94	12.99	8.84	8.77	8.78	8.26	8.60	8.96	8.64	8.74
Brazil	179.15	273.03	379.77	149.00	276.40	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico	53.78	48.67	72.98	104.03	104.64	104.83	100.66	99.01	98.60	98.40	96.86
Philippines	15.99	47.14	16.45	n.a.	n.a.	7.71	11.76	11.80	n.a.	n.a.	n.a.
Singapore	2.59	2.91	2.94	2.10	2.19	1.67	1.93	2.12	2.61	2.63	2.97

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1983	1984	1985	1986	1987						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	9.89	8.34	8.01	8.04	6.97	6.24	6.70	6.98	7.12	7.10	6.98
Canada	9.85	10.00	9.40	8.35	7.45	7.40	6.90	8.15	8.30	8.45	9.20
Belgium	11.15	10.85	9.89	7.60	7.86	7.81	7.50	7.40	7.25	7.00	6.84
France	12.19	10.69	9.12	8.37	8.50	8.25	7.87	8.00	8.12	8.12	7.87
Germany	6.30	5.75	4.80	4.85	3.90	3.85	3.85	3.60	3.65	3.65	3.85
Ireland	12.19	15.13	12.00	14.06	14.12	14.25	13.37	10.87	11.19	10.50	9.87
Italy	17.88	16.88	15.13	11.37	11.37	11.12	10.12	10.00	10.50	11.00	11.12
Netherlands	6.00	5.75	5.75	6.19	5.44	5.50	5.55	5.31	5.25	5.25	5.37
Portugal	24.11	24.57	20.71	16.07	14.95	14.94	14.95	14.96	15.03	n.a.	n.a.
Spain	19.00	12.21	10.51	11.79	12.35	12.60	14.60	17.09	19.80	18.29	17.56
Switzerland	3.88	5.00	4.75	4.50	3.75	4.00	3.87	3.75	3.87	3.81	3.94
United Kingdom	9.31	9.88	12.75	11.25	11.12	10.19	10.06	9.25	9.00	9.25	9.44
Australia	9.05	12.90	19.75	15.10	16.40	16.60	16.27	14.50	13.80	13.45	12.80
Japan	6.45	6.33	7.03	4.34	4.22	3.96	3.98	3.89	3.70	3.75	3.74
New Zealand	11.75	15.00	20.00	24.25	23.60	25.15	25.60	25.70	20.35	n.a.	n.a.
South Africa	19.12	22.78	13.35	8.55	9.20	9.05	8.40	9.10	9.00	8.80	8.80
Chile	20.68	20.68	22.42	19.56	25.34	25.34	23.87	22.42	28.32	14.03	18.16
Hong Kong	14.88	8.25	6.50	4.62	3.44	4.37	4.87	5.50	6.25	6.87	6.19
Indonesia	19.50	19.00	15.00	19.50	16.50	16.00	17.00	16.50	18.00	27.00	n.a.
Korea	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Malaysia	9.80	10.30	8.20	6.00	5.30	3.30	2.60	2.70	2.80	2.75	n.a.
Philippines	15.61	33.21	14.61	8.31	8.34	7.05	8.72	10.05	n.a.	n.a.	n.a.
Singapore	8.44	7.00	5.88	3.94	3.34	3.31	3.26	3.73	4.44	4.31	4.13
Taiwan	8.07	7.85	4.10	3.87	4.31	3.67	3.56	3.57	3.48	4.36	4.72
Thailand	16.00	12.00	15.50	7.75	7.75	7.75	7.75	7.75	7.75	7.75	n.a.

Commercial bank deposit rates

at or near end of month

	1983	1984	1985	1986	1987						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	9.70	8.35	7.75	6.30	6.00	6.13	6.30	6.80	7.05	6.90	6.77
Canada	9.82	10.05	9.40	8.15	7.50	7.40	7.00	8.25	8.45	8.50	n.a.
Austria	6.50	7.50	6.50	5.50	5.12	4.75	4.50	4.37	4.15	4.15	4.25
Belgium	11.25	10.63	9.63	7.44	7.75	7.69	7.37	7.19	7.00	6.56	6.19
Denmark	6.00	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Finland	5.25	5.25	4.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
France	7.66	7.04	6.12	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Germany	5.90	5.25	4.40	4.80	4.70	3.90	3.95	3.95	3.85	3.75	3.75
Ireland	11.75	14.63	11.87	13.75	14.00	14.00	13.25	10.75	11.00	10.25	9.62
Italy	13.25	11.64	11.85	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Netherlands	6.13	5.69	5.81	6.06	5.31	5.37	5.37	5.25	5.12	5.12	5.25
Norway	12.75	12.75	12.00	15.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	21.50	28.00	20.00	n.a.	15.00	15.00	14.50	14.50	14.50	n.a.	n.a.
Spain	12.62	11.64	9.64	8.67	8.54	8.57	8.58	8.60	8.87	9.04	n.a.
Sweden	11.70	11.45	12.18	9.93	10.30	11.00	10.75	9.75	10.00	9.00	9.25
Switzerland	3.50	4.50	4.50	4.25	3.50	3.75	3.62	3.50	3.62	3.56	3.69
United Kingdom	9.31	9.88	11.75	11.19	11.00	10.59	9.84	9.25	8.81	9.25	9.31
Australia	10.40	12.75	18.80	15.56	15.73	16.62	16.19	15.21	14.42	n.a.	n.a.
Japan	6.40	6.38	7.05	4.55	4.16	4.17	4.20	4.11	3.88	3.99	4.09
New Zealand	11.75	15.25	19.98	23.50	22.72	23.70	23.30	23.85	20.00	n.a.	n.a.
South Africa	20.13	22.88	13.20	8.65	9.50	9.25	8.75	9.15	9.25	9.00	9.00
Argentina*	14.50	31.23	5.40	8.41	8.81	4.43	4.86	7.17	7.81	7.96	10.24
Brazil**	23.00	27.00	18.00	220.00	400.00	32.00	30.00	24.00	n.a.	n.a.	n.a.
Chile	20.57	20.68	23.60	20.98	26.97	27.42	24.31	25.93	18.00	17.00	11.00
Hong Kong	14.88	8.25	6.50	4.62	3.44	4.37	4.87	5.50	6.25	6.87	6.19
Korea	7.60	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Malaysia	7.75	9.58	7.00	6.33	4.83	4.66	2.33	2.43	2.35	2.42	n.a.
Mexico	57.15	47.45	72.90	94.30	94.30	94.30	94.30	94.30	94.30	94.30	94.30
Philippines	14.96	31.01	12.34	n.a.	n.a.	6.68	6.13	7.96	n.a.	n.a.	n.a.
Singapore	7.44	6.13	5.26	3.63	3.19	3.32	3.32	3.63	n.a.	n.a.	n.a.
Taiwan	7.00	6.50	5.25	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Thailand	10.00	13.00	10.50	6.75	6.75	6.75	6.75	6.75	6.75	6.75	n.a.
Venezuela	12.00	12.50	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00

***Percent per month.**

Domestic government bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986	1987						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	12.00	11.61	9.49	7.79	7.47	7.48	7.81	8.45	8.65	8.50	8.88
Canada	12.02	11.66	10.04	9.23	8.94	9.10	8.98	9.82	9.92	9.78	10.23
Austria	8.02	8.04	7.61	7.33	7.25	7.05	6.93	6.86	6.74	6.61	6.68
Belgium	11.89	11.56	9.60	7.70	7.57	7.57	7.64	7.66	7.76	7.82	7.64
Denmark	12.96	14.60	9.67	11.70	11.33	12.63	12.23	11.96	11.87	12.06	12.18
Finland	11.16	10.73	10.58	7.80	7.78	7.82	7.89	7.77	7.88	7.85	7.86
France	13.96	12.70	11.33	9.89	9.54	9.84	9.42	9.51	9.86	10.40	10.39
Germany	8.38	7.17	6.57	6.25	6.20	6.26	6.12	5.98	5.99	6.31	6.39
Ireland	14.24	14.90	11.84	12.97	12.64	12.41	11.16	10.47	10.92	10.93	11.81
Italy	17.69	14.52	13.66	10.05	9.78	9.84	10.03	10.08	10.20	10.41	10.90
Netherlands	8.58	7.72	6.96	6.40	6.21	6.15	6.22	6.12	6.07	6.26	6.43
Norway	12.50	12.00	13.00	13.24	13.21	13.03	13.20	12.96	13.08	13.11	n.a.
Portugal	22.11	22.23	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	17.25	13.93	12.30	10.36	10.74	10.59	10.95	12.04	13.43	13.20	13.56
Sweden	12.30	12.04	12.11	10.66	11.70	11.23	10.70	11.07	11.77	11.37	11.79
Switzerland	4.53	4.60	4.42	4.05	3.93	4.01	4.04	4.03	4.07	4.02	4.09
United Kingdom	9.94	10.25	10.35	10.17	10.64	9.51	9.15	8.87	8.79	9.15	9.69
Australia	13.65	13.50	14.85	13.40	13.80	14.00	13.45	13.05	13.00	12.80	12.95
Japan	6.94	6.30	5.82	4.61	4.25	3.96	3.72	3.42	3.38	3.91	4.44
New Zealand	10.50	16.90	17.00	16.00	16.20	16.80	16.30	15.95	15.65	15.45	n.a.
South Africa	13.64	16.55	18.09	15.06	15.33	15.30	14.66	15.30	15.70	15.60	15.18
Philippines	14.47	18.54	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.a.	n.a.	n.a.
Venezuela	13.50	14.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

Commercial bank lending rates to prime borrowers

at or near end of month

	1983	1984	1985	1986	1987						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	11.00	10.75	9.50	7.50	7.50	7.50	7.50	7.75	8.25	8.25	8.25
Canada	11.00	11.25	10.00	9.75	9.25	9.25	8.75	9.25	9.50	9.50	9.50
Austria	9.25	9.25	9.00	9.00	9.00	8.75	8.75	8.75	8.75	8.50	8.50
Belgium	13.75	14.00	11.50	9.75	10.75	10.25	9.75	9.75	9.25	9.25	8.75
Denmark	10.00	10.50	8.50	8.00	9.50	10.00	10.00	10.00	10.00	9.50	9.50
Finland	10.18	10.68	10.37	8.81	8.81	8.80	8.84	8.86	8.89	8.91	n.a.
France	12.25	12.00	10.60	9.45	9.45	9.45	9.45	9.45	9.45	9.45	9.45
Germany	7.75	7.75	7.25	6.75	6.75	6.25	6.25	6.25	6.25	6.25	6.25
Ireland	13.75	15.75	12.50	15.75	15.75	15.75	15.75	15.25	14.25	13.75	12.75
Italy	18.75	18.00	15.88	13.00	13.00	13.00	12.50	12.50	12.50	12.50	12.50
Netherlands	7.00	6.25	6.25	7.12	6.12	5.75	5.87	5.75	5.62	5.62	5.62
Norway	13.50	13.00	12.40	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	30.00	29.00	22.50	17.50	17.50	17.50	19.50	19.50	19.50	n.a.	n.a.
Spain	17.31	15.84	14.75	14.22	14.24	14.24	14.57	15.23	16.21	16.51	16.62
Sweden	13.50	14.50	15.05	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
Switzerland	6.00	6.00	6.00	5.75	5.25	5.25	5.25	5.00	5.00	5.00	5.00
United Kingdom	9.00	9.50	11.50	11.00	11.00	11.00	10.00	9.50	9.00	9.00	9.00
Australia	12.75	14.00	21.00	18.25	18.00	18.25	18.25	17.50	16.75	15.75	15.25
Japan	5.89	5.70	5.71	4.35	4.28	4.24	4.12	4.00	3.90	n.a.	n.a.
New Zealand	11.00	14.00	21.00	18.50	24.00	25.00	27.00	29.00	22.50	22.00	21.00
South Africa	20.00	24.00	16.50	12.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50
Argentina*	15.50	32.05	7.30	11.30	9.85	5.45	5.71	9.20	8.50	9.65	13.20
Brazil**	24.00	31.00	19.00	250.00	440.00	45.00	40.00	37.00	n.a.	n.a.	n.a.
Chile	30.90	60.82	33.34	29.13	33.57	36.07	34.48	36.07	40.27	30.91	27.11
Hong Kong	13.50	11.00	7.00	6.50	5.00	5.00	6.00	6.50	6.50	7.50	7.50
Indonesia	19.75	23.50	18.75	19.75	20.50	19.50	19.50	19.25	19.75	26.00	26.00
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Malaysia	11.00	12.00	10.50	10.00	9.00	9.00	9.00	8.50	8.50	7.75	n.a.
Mexico	56.44	47.54	65.66	95.33	95.89	96.20	96.25	95.79	94.79	93.76	92.91
Philippines	18.00	44.00	15.00	10.00	9.88	8.75	8.53	8.55	9.31	9.50	n.a.
Singapore	8.98	9.40	7.20	6.10	6.10	6.10	6.10	6.10	6.10	6.10	6.10
Taiwan	10.25	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Thailand	16.00	16.50	15.50	12.00	12.00	12.00	12.00	12.00	12.00	12.00	n.a.
Venezuela	16.00	16.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00

***Percent per month.**

**Spread above monetary correction until Feb 86; nominal rate of interest until Jan 87; spread above LBC rate thereafter.

Domestic corporate bond yields

long-term issues, at or near end of month

	1983	1984	1985	1986	1987						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	12.63	12.25	10.15	8.88	8.50	8.55	8.65	9.60	9.55	9.55	9.90
Canada	12.89	12.42	10.74	10.18	9.67	9.90	9.79	10.44	10.44	10.46	11.05
France	14.35	12.94	11.76	10.18	9.92	10.06	9.79	9.82	10.05	10.38	10.37
Germany	8.30	7.20	6.90	6.50	6.50	6.40	6.60	6.50	6.40	6.50	6.60
Netherlands	8.51	7.51	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Norway	13.25	12.75	14.00	14.94	n.a.	n.a.	16.37	15.47	14.22	16.21	n.a.
Spain	20.07	18.32	14.92	13.40	13.72	14.13	14.82	15.52	15.76	16.39	16.94
Sweden	12.21	12.33	13.25	11.99	13.00	12.63	12.15	12.15	12.89	12.47	12.68
Switzerland	4.92	5.09	4.93	4.72	4.62	4.56	4.58	4.57	4.56	4.56	4.53
United Kingdom	11.57	11.64	11.47	11.71	11.30	10.58	10.21	10.09	10.19	10.15	10.55
Japan	7.49	7.11	6.79	5.93	5.46	5.35	5.20	4.99	4.71	5.20	n.a.
Korea	14.20	15.00	13.60	12.80	12.80	12.70	13.00	13.00	12.70	12.70	12.70
Venezuela	18.00	18.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00

World Financial Markets

Published by
Morgan Guaranty Trust Company of New York
International Economics Department
23 Wall Street, New York, NY 10015

Member, Federal Deposit Insurance Corporation Printed in U S A

11/4/87 B6200-2

World Financial Markets

Morgan Guaranty Trust Company of New York

September/October 1987

Global growth and adjustment at risk, 1

- Stubborn external imbalances, 2
- Approaches to adjustment, 4
- Growth in Japan, 7
- Growth in Europe, 9
- U.S. growth and inflation, 10
- Conclusions, 12

Statistical appendix, 15

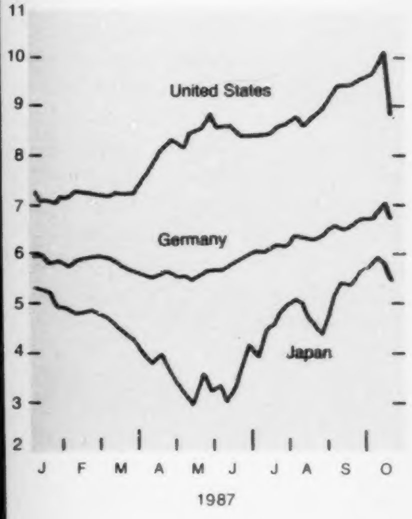
Global growth and adjustment at risk

Scholars, politicians, and financial market participants doubtless will wrangle for years to come over the causes and consequences of this October's stock market crash. At a minimum, the crash represented belated, if abrupt, recognition of the steep rise in bond yields that initially occurred last April in the U.S. case and that gathered pace around the world following the early-September hike in the U.S. discount rate. Mid-October saw ten-year governments yielding as much as 300 basis points above the lows of last spring in both the United States and Japan, and 130 points in Germany (see Chart 1). Following the stock market crash, government yields have moved significantly lower.

Chart 1

10-year government bond yields

percent per annum



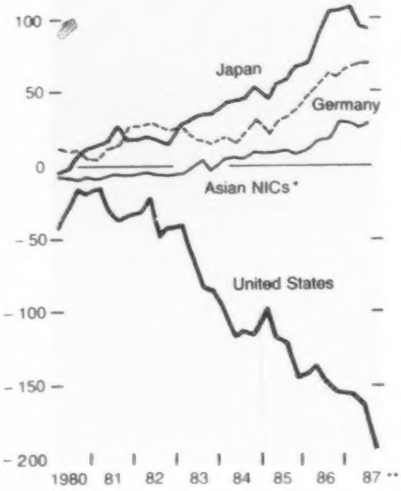
On a more basic level, the bond market developments were the logical outgrowth of last February's Louvre accord. This created the impression that satisfactory progress could and would be made in redressing the major global imbalances on the basis of existing exchange rates and policy fundamentals — those either already extant or coming shortly into place. During the spring and early summer, soothed by the Venice summit's endorsement of the Louvre judgment and encouraged by Japan's fiscal easing, the markets found a sense of security in hopes that the official view would prove sound. The hopes were dashed by the mid-September revelation of July's record $16.5 billion U.S. trade deficit and the news, one month later, of an August deficit scarcely lower. Not only was the U.S. deficit setting records, but Germany's surplus had widened since last winter, the narrowing of Japan's trade surplus had not gone far, and the surpluses of the increasingly prominent Asian NICs showed no convincing decline (see Chart 2).

Plainly, the fundamentals have failed to play by the Louvre script. The modified Gramm-Rudman-Hollings mechanism for U.S. fiscal deficit reduction has set an unambitious goal for the new fiscal year and hardly settles the budget issue. The fact that the yen and mark were not allowed to appreciate for a full eight months added needless substance to rising inflation expectations in Japan and Germany, which were compounded by central bank concerns over fast money growth. Attitudes hardened against expansionary policies in both countries, and instead inspired monetary tightening. Thus both the leading deficit country and the two principal surplus countries have shown little progress and polit-

Chart 2

Trade balances

billions of dollars, BOP basis, seasonally adjusted annual rates



*Hong Kong, Korea, Singapore, and Taiwan

**Latest plotting: Jul-Aug estimated average, except Japan, Jul-Sep

Table 1

Japan: shipments of manufactured goods

percent change from previous period (not at annual rates)

	1980-1985*	1986	1987 Q1	1987 Q2
Total	16.5	0.1	0.9	—0.3
Export	55.9	—1.8	0.4	—3.0
Domestic	10.6	0.5	0.9	0.4
Sectors				
Fabricated metals				
Export	—34.9	—14.7	—1.2	—15.5
Domestic	0.0	0.2	4.9	—2.2
Transportation				
Export	28.6	—10.5	3.8	—11.7
Domestic	0.9	1.2	—1.6	—4.1
Electrical machinery				
Export	189.5	4.9	—0.1	—1.7
Domestic	82.3	8.0	3.6	1.4
Chemicals				
Export	24.6	17.2	3.1	—4.8
Domestic	16.0	—0.9	3.5	—0.7

*Cumulative percentage change.

ical will to reorient their domestic policies in the interest of reducing external imbalances. Premature stabilization of the dollar has been as "counterproductive" for global growth and adjustment as the "hard landing" crash that stabilization efforts were supposed to preclude.

This article reviews the actual progress of trade adjustment among the major countries; considers the reasons and the means to press it further; assesses recent domestic performance and policies as they relate to international adjustment; and offers recommendations.

The markets have fired a warning shot across the bow of the good ship G-7. More conciliatory now, the U.S. Administration and Congress may go beyond the immediate Gramm-Rudman-Hollings mandate on fiscal restraint. Surplus countries then need to follow up with expansionary measures, opening the way to orderly realignment of exchange rates in due course. Otherwise, market instabilities will recur and global economic progress be in grave jeopardy.

Stubborn external imbalances

Progress in reducing imbalances has been patchy and limited. It has fallen short of predictions based on historical experience, leaving yawning trade gaps not only for the leading industrial economies but also for the Asian NICs.

On the positive side, the slowdown in Japan's exports has continued in 1987, especially for fabricated metals and transportation equipment (see Table 1). Overall export volume was off 2.4% for the first nine months of 1987 on a year-over-year comparison, while total imports rose 6%. Officials stress the much steeper rise in Japan's imports of manufactures which, excluding gold, jumped 19% in volume terms. Of course, the jump was from a very low base. Still, contrary to common assumption, at least some of Japan's imports respond to yen appreciation (in yen terms Japan's manufactures import prices averaged 24% lower this year to date than in all of 1985).

Having dropped 1.3% of GNP in 1986, Japan's real net exports may be down another 0.8% this year. Yet there is far to go in rectifying the external imbalance in dollar terms. The overall trade surplus has ebbed but the only significant bilateral declines have been with China, the Middle East, and some commodity-producing countries. Japan's reduced exports to China reflect Chinese spending cuts. Its rising imports from oil and other commodity producers mainly reflect price developments. Meanwhile, Japan's trade surpluses with North America and Europe continue stubbornly high (see Table 2). For 1987 as a whole, Japan's trade surplus may be down little and its current account surplus may brush last year's record. Further, machinery orders suggest that the falloff in exports is nearing its end.

Germany has experienced some limited volume adjustment in its external trade. Its real net exports fell 1.1% of GNP in 1986 and may dip a further 0.5% this year. Its finished goods imports rose at an 8% annual rate during the two quarters of domestic weakness last winter and continued strong through mid-1987. However, unlike Japan, Germany has not seen any protracted fall in exports. Indeed, in the second quarter its export volume reached a record and orders point to further gains. So far in 1987 Germany's current account surplus has run at an annual rate $8 billion higher than last year, much of the increase occurring in trade with its European partners (see Table 3). Partly in consequence, Italy's current account surplus has faded away and both Britain and France have seen their

Table 2

Japan: bilateral trade balances

CIF, billions of dollars at annual rates

		3 months ended September 1987	
	1986	*Actual*	*Change from year earlier*
United States	51.4	53.5	—1.6
Canada	0.6	—0.7	—1.1
Western Europe	19.4	22.3	—0.5
Southeast Asia	12.3	12.5	—4.4
China	4.2	—0.3	—5.5
Middle East	—8.6	—11.0	—4.7
Latin America	3.3	1.7	—1.2
Total	82.7	78.3	—20.2

Table 3

Germany: bilateral trade balances

CIF, billions of dollars at annual rates

		3 months ended August 1987	
	1986	*Actual*	*Change from year earlier*
United States	13.2	13.5	—0.8
EC	24.0	33.2	6.5
Non-oil developing countries	—0.7	—1.5	—1.5
OPEC	2.2	1.3	—2.1
Eastern Europe	2.3	1.4	—1.4
Total	52.1	60.7	1.0

current accounts slide into deficit — trends that are not sustainable.

The good news on U.S. trade adjustment lies in the slowing of import growth and, more especially, the strong, if belated, recovery of exports. From the third quarter of 1986 through the second quarter of this year, non-oil import volume rose at a mere 2.4% annual rate. By contrast, agricultural exports climbed 13% by volume and other merchandise exports only a little less. U.S. exporters have started to win back world market share: the 1987 volume increase in U.S. manufactures exports, for example, may reach 12% — at least triple foreign import growth. External trade should add 0.4% to U.S. growth this year. Already, in the final quarter of 1986 and the first of 1987, it contributed more than two-fifths of the gain in real GNP.

Unhappily, in the second quarter of 1987 and still more in the third, the trend of improving real net exports was interrupted. With the terms of trade moving adversely, the trade deficit in dollar terms actually widened. The red ink reached an annual rate of $171 billion on the CIF valuation in January-August, substantially greater than in the same months of 1986 and worse by a staggering $14 billion vis-à-vis Asian countries (see Table 4). With no repeat of the 1986 special gold shipments, U.S. exports to Japan *fell* 3%, while imports were virtually unchanged; and, although the United States exported 24% more to the four principal Asian NICs, its much larger imports from the four jumped 27%.

U.S. adjustment is impeded by demand restraint abroad, where investment spending is weak by historical standards, undermining demand for U.S. capital goods. Demand weakness has imposed remarkable pricing restraint on U.S. exporters generally. In the second quarter of 1987 U.S. export prices were up only 0.8% from a year earlier and remained below the average for 1985. Farm prices stayed depressed. Prices for capital goods were up just 1% over the two years and those for autos and consumer goods only 4%-6%. Some, but not all, of the explanation lies in the tendency of U.S. firms to set their export prices much in line with those for domestic sales. Consequently, in yen or European-currency terms, U.S. exporters have cut prices steeply since 1985 — "passing through" to foreign purchasers virtually 100% of the dollar's depreciation.

This contrasts with the minimum-pass-through, U.S.-market-sensitive pricing practiced by other industrial countries and the Asian NICs. The dearth of attractive alternatives has driven them to every effort to hang on to U.S. market share, taking advantage of the leeway afforded by the high profits earned at the dollar's peak, lower oil and raw material costs, and domestic conditions conducive to compressing labor costs. This has retarded increases in U.S. import prices. Of course oil prices have actually fallen. Among manufactures imports price gains were more marked — almost 17% for autos and about 14% for both capital and consumer goods — but paled beside the dollar's 22% depreciation in broad, real effective terms. Not surprisingly, import penetration of the U.S. market remains historically high.*

---

*To a large extent, the limited pass-through of the dollar's decline to U.S. import prices mirrors experience during the dollar's earlier appreciation: from 1981 through 1985, while the dollar rose 24% in broad, real effective terms on a calendar-year average comparison, the national accounts deflators for U.S. imports of capital goods, autos, and consumer goods declined 14%, 2%, and 4%, respectively, relative to final-sales deflators; these moderate falls help explain why the subsequent return of the dollar close to its 1981 real level has raised relative import prices for the same three product sectors just 11%, 11%, and 8%. Effective price adjustment likely runs higher, since changing credit and service terms are not captured in recorded import prices.

Table 4

United States: bilateral trade balances

FAS/CIF valuation; billions of dollars at annual rates; not seasonally adjusted

		Year-to-date ended August 1987	
	1986*	Actual	Change from year earlier*
Japan	—58.6	—59.4	—1.2
Canada**	—13.9	—10.7	3.5
Western Europe	—32.6	—30.6	4.7
Germany	—15.6	—16.5	0.4
France	—3.4	—3.3	0.5
United Kingdom	—4.6	—3.7	0.9
Italy	—6.5	—6.3	0.6
Netherlands	3.5	4.0	1.0
Latin America	—13.6	—15.6	—1.1
Brazil	—3.5	—4.2	—0.1
Mexico	—5.2	—6.1	—1.0
OPEC***	—4.6	—7.7	—3.1
Asia excluding Japan	—37.4	—49.1	—12.8
Hong Kong	—6.5	—6.4	—0.4
Korea	—7.1	—9.8	—2.9
Singapore	—1.5	—2.1	—0.8
Taiwan	—15.7	—19.7	—4.4
Other countries	0.4	2.0	1.6
Total revised statistical month	—166.3	—177.5	—14.4
Total Canada adjusted	—160.3	—171.1	—8.4

*1986 data were reported on a basis that the U.S. Department of Commerce discontinued in 1987. Thus, year-earlier comparisons are approximate.

**Beginning in 1987, monthly trade data include an adjustment for understated exports to Canada. Adjusted monthly estimates for 1986 were obtained by prorating the 1986 annual adjustment.

***Excluding Ecuador, Indonesia, and Venezuela.

Another obstacle to U.S. trade adjustment is the domestic oil demand-supply imbalance. This year's net imports have averaged 5.9 million bpd so far, 33% above the 1985 average. Valued at $19 per barrel, they now contribute over $40 billion to the trade deficit. Domestic oil consumption may rise 2% in 1987, while production may dip some 350,000 bpd, or 3.5%. These are smaller percentages than recorded in 1986, but bring net imports to 37% of 1987's consumption, up from 28% just two years ago.

Despite this year's disappointments, some alleviation of the major global imbalances should yet come to pass given the present U.S. and foreign demand outlook. If the dollar falls no lower, the 1988 U.S. trade deficit may narrow to perhaps $150 billion CIF, down $25 billion from the likely 1987 outcome. Since U.S. net investment income is sliding inexorably into the red, the current account deficit would shrink much less, perhaps by only $7 billion, to $159 billion. Beyond 1988, however, the combination of a dollar locked near present levels with an already adverse U.S. inflation differential would soon halt adjustment. The U.S. current account would swiftly deteriorate and net international liabilities could rocket from an estimated $414 billion at the end of this year to as much as $900 billion, or 18% of U.S. GNP, by end-1990 (see Chart 3).

If, as interest rate differentials suggest, the dollar winds up falling moderately, the 1988 U.S. current account outcome would improve slightly to around $150 billion (see Table 5). Other principal countries would see modest reductions in their current account surpluses, to perhaps $79 billion for Japan and $37 billion for Germany in 1988, down $7 billion and $3 billion, respectively, from the likely 1987 results. Thus, more than two years' effort to tackle global imbalances promises no quick resolution.

Approaches to adjustment

There is no unanimity on what, if anything, should be done to advance international adjustment. Some analysts judge the imbalances to be of little concern. It is said that impressive employment gains, respectable output growth, and improving productivity — all amid moderate inflation — show the U.S. economy to be thriving despite, or even thanks to, the trade deficit. Moreover, the U.S. deficit has underwritten world recovery from the recession of the early 1980s and other economies still are not ready to cope without U.S. stimulus. Besides, the deficit ultimately is financed by investors in the surplus countries who voluntarily place funds in the United States in expectation of superior returns, or by their governments who deem it in their interest to avert further depreciation of the dollar. A number of the surplus countries see themselves as members of an informal dollar area, within which payments imbalances need not be addressed. Others maintain that the dollar already stands at a proper level and that adjustment will take care of itself in due course.

There further is a tendency to exaggerate the role of non-OECD countries, neglecting the fact that trade with industrial countries accounts for three-quarters of the overall U.S. trade deficit and still more of the surpluses of Japan and Germany. Some U.S. politicians, arguing that LDC financial problems perpetuate the U.S. trade deficit, see the answer in debt relief. Yet while U.S. trade with Latin America showed an annual rate deficit of over $15 billion in January-August this year, versus a surplus of $5 bil-

Chart 3

U.S. current account and net foreign debt

billions of dollars

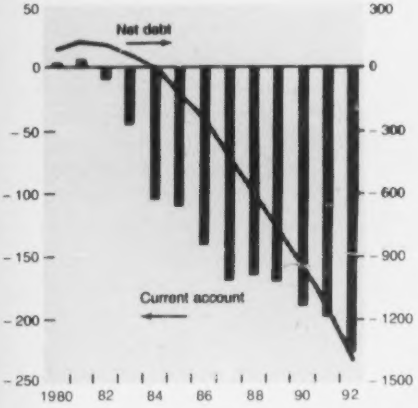


Table 5

Current account balances

billions of dollars

	1986	1987	1988
United States	—141	—167	—152
Japan	86	86	79
Germany	37	40	37
France	3	0	—1
Italy	5	1	—2
United Kingdom	—1	—3	—5
Canada	—7	—7	—7
Hong Kong	4	11	9
Korea	5	12	10
Singapore	1	0	0
Taiwan	16	26	24

lion in 1981, the swing represents less than one-sixth of the $130 billion overall U.S. trade balance deterioration. In any event, it is naive to suppose that the bilateral swing can be easily undone, given the urgent need to increase LDC *exports* — a key prerequisite for restoring the import capacity and economic growth of the debtor countries and returning them to creditworthiness.

Another obstacle to global adjustment is seen in the surpluses of Taiwan, Korea, and Hong Kong, which may aggregate $49 billion this year on current account. The transfer of technology, materials, and management skills to low-cost areas — most conspicuously the Asian NICs, but also Mexico and elsewhere in Latin America — increases global goods supply, swelling the trade deficits of the more open industrial countries, particularly the United States. Given time, it is said, the global demand-supply gap will close as the low-cost areas boost spending, certainly once Latin America's problems are sorted out. Until then, adjustment by industrial countries would be unlikely to blunt the fundamental competitiveness of the low-cost areas but could retard their exports and spending through world recession or impaired market access. Attempts to speed adjustment might be counterproductive.

Adjustment risks there surely are, but go-slow arguments are far too complacent about the costs, actual and potential, of failure to come to grips with the imbalances among the industrial countries themselves. The actual costs center on the consequences of the below-potential — and certainly suboptimal — growth that Japan and Continental Europe have settled for over the last several years. Their poor performance does no favors for their own peoples and unnecessarily burdens other countries besides. The global waste implicit in deficient demand in Japan and Europe today cannot be compensated by increased demand in the Asian NICs or others tomorrow.

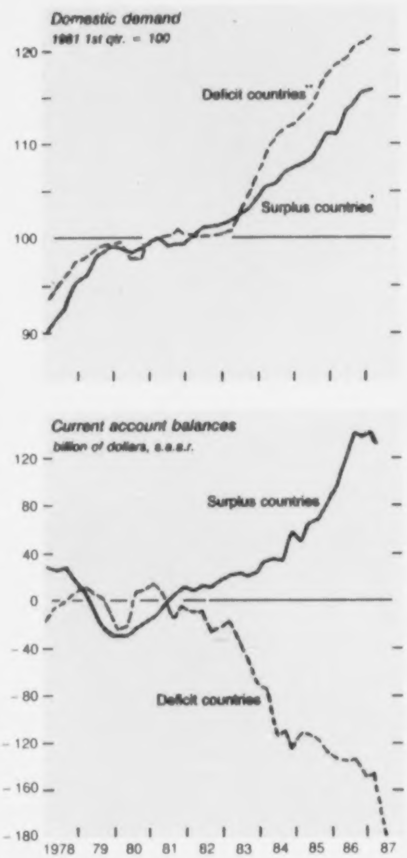
The potential costs of inadequate adjustment include disruption of global goods and financial markets. Just as the growth in U.S. imports has increased the interdependence of the world's goods markets, so too has global deregulation heightened it in financial markets. Interdependence improves opportunity but increases vulnerability, real or imagined. For example, the buildup of U.S. liabilities to foreigners, whether on a gross or net basis, is increasingly seen to circumscribe U.S. policy-making independence.

Adjustment complacency is not the mood of financial markets, which are acutely sensitive to the ebb and flow of U.S. economic and political thinking, notably on trade protection and price stability. On protection, not only would intensified U.S. restrictions entail significant costs in economic efficiency but adverse currency and credit market reactions could multiply the damage. In this connection, many financial market participants believe last April's deterioration of U.S. bond markets was triggered by the decision to impose punitive tariffs in the U.S.-Japan semiconductor dispute. Financial market reaction was similarly damaging more recently as the perception spread that the U.S. authorities were willing to accept higher inflation for the sake of short-term gains in activity and jobs. At the least, the attendant higher interest rates bloat the expense of servicing the U.S. external debt. More seriously, they now have devastated stock markets around the world and further may precipitate recession. That would make bitter reality of the long-playing prophecy of the world economy's inevitable "hard landing."

To help avert such calamity, more

Chart 4

Growth breeds deficits



*Germany and Japan

**United States, France, Italy, United Kingdom, and Canada

decisive adjustment is needed, and without delay. Yet the adjustment medicine appropriate for small countries may do more harm than good if unthinkingly urged upon the large. Whereas adjustment by a small country has no important global ramification, the same does not hold true for the large, least of all for the U.S. economy that generates 35% of industrial-country GNP. Even so, the United States will have to take the orthodox medicine, restraining domestic demand to free up resources and shifting relative prices to ensure that the resources go to work in export and import-competing production. To sustain global demand as this occurs — and, not incidentally, to complement and assist U.S. adjustment — countries in external surplus and with spare domestic capacity should *spend* their surpluses by expanding their domestic demand. Yet countries in surplus — in present circumstances, principally Japan, Germany, and some of the Asian NICs — are always reluctant to expand. They typically view surpluses as prudent and virtuous provision against future adversity. Further, being net external investors rather than borrowers, they are little influenced by outside pressure. This systemic failing helps explain the spreading perception that orthodox medicine is ineffective.

To the contrary, the medicine is highly effective when taken in the right dosage. More than one episode in recent history shows that adjustment occurs at a dramatic pace, once appropriate policies are in place. The outsize OPEC surpluses that followed the 1970s' price shocks speedily eroded, partly because all the oil exporters proved to be "high absorbers." They stepped up their imports unexpectedly fast; their vast terms of trade gains were passed on to their private sectors, which were willing to consume or invest, or spent by governments for social and infrastructure investment. At the same time, most oil importers passed on 100% or more of oil-price increases to their domestic users. Terms of trade losses translated into real income reductions — admittedly, precipitating grievous recessions — and also into relative price incentives to conserve energy. Thus both income and price factors proved powerful tools of adjustment and their effects were reinforced by a fair degree of policy coordination among the major countries.

For several reasons, global coordination efforts have been relatively impotent in the 1980s. First, the increased economic weight of other major industrial countries makes them less beholden to U.S. leadership. Second, global financial change and innovation render uncertain the quantitative effects of monetary policy, coordinated or not. Third, the proper coordination of fiscal policies now would require much larger adjustments of existing programs, relative to GNP, than in the mid-1970s. Fourth, the 1970s' experience of inflation calamity and public-sector excesses gave fiscal policy — and demand management generally — a bad name; only recently, and with much misgiving, has activist fiscal policy recovered some shred of acceptability, at least if dressed in supply-side garb.

Moreover, perversely, some of today's surplus countries have followed the rules written for *deficit* countries and have been reluctant and tardy in spending real income gains in the form of stepped-up domestic demand (see Chart 4). Tight-fisted fiscal policies have held down public spending or resisted tax cuts, thereby failing to counter the contractionary effects of currency appreciation. As a result, spending is discouraged by employment worries even where, as in Germany, workers have won sizable wage increases.

Table 6

*Terms of trade gains and losses**

percent of real GNP

	1986	1987
United States	0.3	—1.0
Japan	2.0	0.2
Germany	2.9	0.5
France	2.4	0.2
Italy	2.9	0.4
United Kingdom	—1.1	—0.1
Canada	—0.9	0.6

*The figures represent the amount by which real national income rises or falls as a result of changes in prices of exports relative to imports.
Source: OECD.

Table 7

Japan: sources of growth

percent change from previous period at seasonally adjusted annual rates

	1987			
	Year	Q1	Q2	1988
Domestic demand	4.2	3.2	4.8	4.1
Private consumption	3.2	7.6	2.6	2.8
Government consumption	0.0	—37.1	3.4	2.7
Business fixed investment	6.4	10.5	5.4	4.0
Residential investment	15.6	2.5	18.1	7.3
Government fixed investment	7.7	4.2	7.7	8.5
*Inventory investment**	0.4	0.2	0.3	0.7
*Net exports**	—0.8	2.1	—4.6	—0.7
Exports	—0.1	10.2	—6.3	—0.7
Imports	5.8	—2.5	26.0	4.3
GNP	3.2	5.3	0.0	3.2

*Change as percent of previous period's GNP; inventory investment estimated as a residual.

Spending in Japan is further deterred by competition from the Asian NICs, which has discouraged Japanese workers from pressing for higher wages. Moreover, in both Germany and Japan, there is too easy acceptance of the claim that wage increases are inflationary — an unreasonable contention if wage increases fall short, as they actually have, of the *sum* of productivity growth and terms of trade gains (see Table 6).

At the same time, whereas U.S. wage moderation, particularly in real terms, has been appropriate to the goal of external deficit adjustment, actual adjustment progress has been limited. The culprits have been unexpectedly robust domestic demand, thanks to the delay in tackling the fiscal deficit and the willingness of the private sector to borrow as necessary to sustain spending, and the "dollar pass-through" problem that, as discussed earlier, has prevented relative price changes sufficient for adjustment.

In sum, there have been shortcomings on the part of both surplus and deficit countries in implementing the orthodox income and price approach to external adjustment. The approach remains valid, but the shortcomings have to be addressed. The price aspect could be tackled by rendering existing pricing practices either untenable — through a sufficient further fall in the dollar — or unattractive, through U.S. demand restraint and stepped-up spending in other countries to reduce the *relative* appeal of the U.S. market for producers around the world. To some extent, price adjustment can substitute for income adjustment. The extent of further currency changes required to correct world imbalances is critically dependent on domestic demand trends in Japan, Europe, and the United States itself.

Growth in Japan

Because Japan's current account surplus is so large — about 3.5% of GNP this year — appropriate adjustment measures must be correspondingly large in scale and *sustained* over time. Japan's terms of trade gains, amounting to 2.2% of GNP in 1986-87, have to be passed through to economic sectors that will spend them, both on domestic and imported products. Public investment is an obvious candidate. So too must be private consumption, fortified by real wage increases in excess of productivity gains. With supportive policies, Japan should be capable of noninflationary growth distinctly above its approximately 4% annual potential for several years to come. Yet, Japan's actual performance falls short of potential and the future of its internal and external adjustment still is problematic.

At first glance, trends in 1987 make this assessment seem overly harsh. The economy is expected to grow by 3.2% this year and next, despite a 0.8 percentage point shrinkage of net exports in both years. Domestic demand growth accelerated to 4.8% annualized between the first and second quarters of 1987 (see Table 7), with private consumption growth averaging over 5% in those quarters — about two percentage points faster than in 1985-86. In the first eight months, housing starts soared 21% above the year-earlier pace. Moreover, Japan's fiscal policy has eased since last winter. Public investment could grow 8% in 1987 — almost double last year's rate. Taxes are being cut this fiscal year by a net 1.5 trillion yen, or 0.4% of GNP, with the maximum personal rate lowered from 70% to 60%. The tax cuts, plus waning fears of unemployment, should lessen the likely slowing of consumption in the second half of this year.

Though Japan's fiscal easing should properly be a continuing endeavor, it may prove in fact a one-shot affair. Even in 1987, the fiscal posture is stimulative only if compared with the initial plan for the year; relative to the 1986 result, the posture for 1987 as a whole is slightly restrictive. Now, just a brief run of positive news on the economy's performance and adaptation to a 145-155 yen-dollar rate has resurrected earlier goals for long-run budgetary balance. Next year's newly enacted — and, in itself, desirable — termination of certain savings preferences, plus the indirect tax increase that the government may again propose, could largely undo the current year's net tax reduction and tighten fiscal policy anew.

Japan's monetary policy already is tilting toward restraint, with short-term interest rates edging higher and long-term rates up sharply since the spring. The Bank of Japan is anxious about inflationary pressures, and not only on Tokyo land prices, despite the prospect that consumer prices generally should not rise much above 1% this year or next. The monetary aggregates are rising more rapidly than in some previous years and the pace has picked up in recent months. To an extent this reflects the continuing effects of deflation and financial liberalization. But stepped-up monetary growth also results from efforts to hold down the yen. Were the yen to rise in line with fundamentals, overall inflationary pressure in Japan would be nugatory.

As it is, Japanese consumers face notoriously high prices in some sectors, partly through lack of effective openness to imports. They also are receiving slim wage increases. Nominal wages in the first half of 1987 were just 2.8% above their year-earlier level, below the 3% growth trend in economywide real productivity since 1980, let alone its 4% rise in the first half of this year. The shortfall is yet larger in manufacturing, where productivity runs above average but earnings have risen only 1.8%. The general softness of wages reflects subdued domestic demand and employment during the 1980s as a whole. In addition, Asian NIC competition is curbing Japanese wages in manufacturing and, by institutional extension, in the wider economy too. Japanese consumers therefore have received only a fraction of the nation's terms of trade gains.

A related drag on trade adjustment has been the 20% cut in Japan's manufactures export prices in yen terms during the past two years, made possible by sheltered profits at home, wage docility, productivity gains, and greatly reduced imported input costs. Quite small increases in dollar selling prices have turned out consistent with satisfactory overall business profits at the present yen exchange rate. Unhappily, this prolongs reliance on export markets.

How can price and income adjustments be brought about that will correct Japan's external imbalance and realize the economy's potential? Conceivably, a run-up in commodity prices could bloat Japan's import bill and curb its overall trade surplus. Such a "solution" — implausible though it is — might do little to redress Japan's surpluses with North America and Europe and certainly would not promote growth. Another scenario might see the Asian NICs losing competitiveness through currency appreciation or large-scale wage increases; Japanese firms then would have less reason to penny-pinch their own labor costs and could more readily accommodate domestic wage pressures should Japan's economy pick up steam. This scenario may be one possibility for the future, but is not today's actuality.

The hard truth is that Japan is unlikely to adjust externally if the authorities cling to the present yen exchange rate and yield to their inclinations to tighten domestic policies. Perniciously, that would increase Japan's reliance on external demand for growth, prematurely terminating the overdue shift toward reliance on domestic sources. Japan instead needs a policy framework accepting that the yen will rise further and targeting domestic demand for several years to come to contribute five percentage points annually to the economy's growth. Real GNP growth then would run close to Japan's 4% potential rate and the negative contribution of net external demand could serve to work the current account surplus down to $47 billion by 1990 — still sizable, but far more consistent with global adjustment than the $70 billion surplus that existing tendencies suggest. Multiyear fiscal expansion would have to be the principal instrument. Unfortunately, no such plan — rather, the reverse — is currently on Japan's agenda.

Table 8

Germany: sources of growth

percent change from previous period at seasonally adjusted annual rates

	1987			
	Year	*Q1*	*Q2*	*1988*
Domestic demand	2.1	—2.3	4.1	2.5
Private consumption	3.0	—3.6	12.8	3.5
Government consumption	1.0	2.0	1.0	2.0
Equipment investment	3.0	21.5	—7.6	1.5
Construction	—1.5	—45.3	52.3	1.0
*Inventory investment**	0.3	7.2	0.0	0.0
*Net exports**	—0.6	—0.8	0.1	—0.2
Exports	1.5	—8.0	10.3	2.0
Imports	4.5	—6.6	11.0	3.0
GNP	1.5	—3.0	4.1	2.2

*Change as percent of previous period's GNP; inventory investment estimated as a residual.

Growth in Europe

The terms of trade gains associated with currency appreciation and lower energy prices have flowed through more fully into consumer real incomes in Europe than in Japan. Yet, the resulting spur to Europe's economic activity has proven weak. With external demand shrinking and domestic demand falling short of original expectations, Europe's overall real GNP growth has not picked up this year. Although it has accelerated in Italy and the United Kingdom, growth has sagged in France and Germany.

Germany's disappointing performance is the core concern, deteriorating during 1986 as a small real export decline, largely reflecting OPEC and East European austerity, prompted firms to slow investment and consumers to step up saving. Domestic manufacturing orders fell from mid-1986 through the middle of this year, only reviving in August. However, private consumption perked up in the second quarter (see Table 8), soon after the new metalworkers' contract called for a 3.7% wage increase. Real wages should be up more than 2% economywide in 1987, shifting to workers some of the earlier terms of trade gains that initially had accrued largely to profits. Still, consumers are likely to receive very modest real wage increases in 1988 and 1989, while the shorter workweek prescribed by the wage agreement will raise employers' labor costs and depress employment.

Germany's industrial production has fallen and its unemployment has risen so far in 1987. Although both turned around in August, optimism would be premature. Real GNP growth may not exceed 1.5% for the year as a whole, compared with the 2.5% achieved in 1986, due to the slide in domestic demand growth from 3.5% last year to 2% for 1987. This domestic weakness is holding down Germany's imports, in turn depressing growth elsewhere, particularly within Europe.* France and Italy — neither with strong balance of payments positions — will again show real net export declines this year. Germany's real net exports may be down just 0.5% of GNP this year, much less than the 1.1% decline in 1986. Next year, despite expectations of slightly stronger domestic demand growth, real net exports may erode hardly at all unless the mark appreciates. In sum, though real GNP growth may edge a little above 2% in 1988, Germany's performance, as distinct from intention, may contribute little to constructive international adjustment.

---

*Being so highly integrated into the world economy, some of the smaller European countries — the Netherlands, for example — would rather reduce real wages and domestic growth than suffer export declines.

On the face of it, Germany has eased both fiscal and monetary policies this year. The Bundesbank has acquiesced in considerable overrun on its money supply objective, with CBM (central bank money) rising at an annualized 7.8% during the first nine months of 1987 versus a target of 3%-6% for the year as a whole. The Bundesbank is concerned that chronic overruns could jeopardize its credibility. This year's overrun, however, is less stimulative or inflationary than appears, in part because international investors betting on an appreciating mark have helped swell the demand for German money. Still, CBM growth has slowed since last winter, if with some pickup in the last two months. Of course, rapid money growth does not automatically push up prices in an economy that is far from full employment. In Germany today, actual nonenergy, nonfood inflation remains very slight. Land and commodity prices, in mark terms, still are below their levels of two or three years ago. And prospective nominal wage growth is low. These facts leave little basis for the degree of inflation anxiety now subsumed in German long-term interest rates, nor for the Bundesbank's recent steps to tighten at the short end.

On the fiscal side, the first half of 1987 saw Germany's combined federal-state cash deficit run at an annual rate of DM13 billion, or 0.6% of GNP, above the corresponding 1986 figure. The bulk of the widening was cyclical as revenues were undermined by the economy's unexpected weakness. In 1988, the second tranche of a three-stage tax reduction and reform is due, cutting taxes by DM14 billion, or 0.7% of GNP. The third tranche would cut net taxes in 1990 by a further DM20 billion, or 1% of GNP, lowering gross taxes by DM39 billion but recouping DM19 billion by scaling back subsidies and preferences.* Following protracted dispute, the coalition recently agreed on savings aggregating DM18 billion, of which DM4 billion is supposed to come from a 10% withholding tax on German interest income. For modest revenue gain, this new impost has demoralized the bond markets, while the package otherwise adds up to something less than a frontal assault on the subsidy and preference apparatus. Still, the net tax cut should bolster the medium-term outlook for German growth. Even better would be implementation of the 1990 tranche well ahead of schedule, giving domestic demand a swift and potent tonic.

Considering Germany's large current account surplus, its minimal rate of inflation, and its economic leadership of Europe, German fiscal policy should countenance budget deficits *consistently* sufficient to foster annual domestic demand growth of 4%. If the mark also is allowed to appreciate, the current account surplus could be worked down to $15 billion by 1990 and the negative contribution of external demand would hold Germany's real GNP growth to a noninflationary, yet unemployment-reducing, 3% annually. Unfortunately, steadfast implementation of this approach to adjustment runs afoul of domestic politics and the limited popular acceptance of activist fiscal policy.

U.S. growth and inflation

If the United States is to correct its trade and current account deficits,

---

*The reform adjusts marginal rates in the middle- to upper-income brackets, but the top rate is to fall only from 56% to 53% and corporate relief will be small. Thus the reform does not significantly restructure incentives for entrepreneurship and efficiency, as in the U.S. case. Rather, it amounts to a traditional Keynesian stimulus.

Table 9

United States: sources of growth

percent change from previous period at seasonally adjusted annual rates

	1987			
	Year	*Q2*	*Q3*	*1988*
Domestic demand	2.2	2.4	4.0	2.1
Private consumption	2.1	1.9	4.8	2.4
Government purchases	2.6	3.8	4.7	2.0
Business investment	0.3	11.7	23.7	4.0
Residential investment	—0.8	—2.8	—0.2	—7.0
*Inventory investment**	0.5	—0.9	—0.3	0.2
*Net exports**	0.4	0.1	—0.2	0.8
Exports	11.0	17.9	16.5	11.0
Imports	5.9	11.1	16.5	3.5
GNP	2.6	2.5	3.8	2.9

*Change as a percent of previous period's GNP.

it too must make appropriate income and price adjustments. Impressive job creation since 1982 has brought the economy to the verge of full employment, implying a need for domestic restraint to free resources for trade improvement. Estimates of the annual potential growth of U.S. real GNP cluster in a 2.5%-2.7% range. If one percentage point is to be taken up by net external demand — reversing by 1990 most of the deterioration the United States has sustained during the 1980s so far — domestic demand can grow hardly more than 1.5% annually without escalating inflation.

Recently, actual domestic demand growth has run distinctly higher — averaging over 3% in the first two quarters of 1987 (see Table 9) rising to 4% in the third. Restraint requires private and public spending discipline. The first is contingent on sustained wage moderation, the second on difficult budgetary decisions. Finally, relative prices must make the employment of resources profitable in export and import-competing production, in particular, requiring that U.S. import prices rise significantly relative to general domestic prices.

The need to free resources for trade improvement does not yet apply to U.S. plant and equipment capacity, despite the 4.5% increase in manufacturing production in the twelve months through September. Capacity utilization in U.S. manufacturing was only 81.5% that month. This was two percentage points above the year-earlier level but far below the 86.5% attained during the inflationary 1978-80 period.

U.S. labor resources are another story. The fall in the unemployment rate — to a September figure of 5.9%, down from 7% twelve months earlier — leaves it nudging even the more optimistic estimates of the U.S. economy's NAIRU (nonaccelerating inflation rate of unemployment). Scattered labor shortages and wage pressure are emerging in various skills and regional markets. Were more pervasive shortages to develop, the hard-won climate of wage "realism" — bred by deregulation, international competition and, not least, the last recession — could not be sustained. Already, legislative initiatives manifest dissatisfaction with the long-standing decline in real wages, in terms of hourly earnings per head. Nominal wage acceleration now may be at hand, although real wages may not turn upward for some time in view of contractual inertia and the slow revision of inflation expectations.

The fiscal posture remains a key obstacle to prudent management of overall U.S. domestic demand. True, public spending growth has been slowing in real terms since 1985, when measured by government purchases, while the federal deficit tumbled from FY1986's $221 billion to just $148 billion (3.3% of GNP) in the fiscal year just ended.* But, even complying with the revised Gramm-Rudman-Hollings provision, the deficit may back up to $165 billion or more in FY1988, a posture that would not manifest restraint.

How then may appropriate demand restraint be achieved? Whether or not help comes from the budget, monetary policy has the key discretionary role. September's rise in the discount rate was put through in a climate of concern about budgetary impasse and inflationary pressures despite the record of much-reduced growth in the monetary aggregates this year, the evidence that actual inflation has slowed in recent months at most

---

*A bonanza in capital gains tax collections, plus front-loading aspects of tax reform and miscellaneous one-shot actions, largely explain the improvement. These factors may contribute less, or work in reverse, during FY1988. However, it is worth remembering the gross inaccuracies that have long plagued forecasting of the budget outcome, culminating in the extreme underestimation of deficit reduction in FY1987.

Table 10

U.S. inflation

*selected indices; annual rate percent changes**

	Latest 12 months	*Latest 6 months*	*Latest 3 months**
GNP deflator			
Implicit	4.1	5.5	4.9
Non-oil imports	5.5	8.2	14.8
Consumer prices	4.3	4.6	4.3
Excluding food and energy	4.2	4.5	3.8
Goods	4.4	4.6	3.6
Services	4.2	4.5	4.9
Producer prices			
Finished goods	3.2	3.3	1.9
Intermediate goods	4.2	5.4	7.3
*September commodity prices***	19.9	20.4	18.2
Food	4.3	9.9	—2.0
Industrials	32.1	28.2	34.5

*Data are through September 1987, except for consumer prices (August) and the GNP deflators (1987 Q2).

**Commodity Research Bureau.

levels of the U.S. economy (see Table 10), and the likelihood that a combination of tight monetary policy with dollar stability will deter the rise in U.S. import prices essential to expenditure switching and trade adjustment.* October's stock market crash interrupted the tightening monetary trend, at least temporarily, as the Federal Reserve rightly moved to supply liquidity to safeguard the financial system. The stock market action leaves a legacy of uncertainty and impaired net worth that is likely to slow private consumption and investment. In turn, this could help avert overheating of the labor market, the central objective of counterinflation policy. Still, amid continuing market turmoil it is too soon for any confident assessment of the scale and timing of the economic fallout.

The crisis-compelled easing of monetary policy will not be sustainable without a prompt and successful undertaking to break the impasse over fiscal policy. Its urgency could hardly have been signaled more forcefully than by the stock market's plunge. Yet federal spending sequestration under the Gramm-Rudman-Hollings provision would amount less to a credible compromise than to a demonstration of continuing failure of the political process. The kind of compromise that would most help market confidence requires a combination of revenue increases and spending cuts that is substantive on both scores and that, without overkill, yields rather more than the mandated minimum of $23 billion (0.5% of GNP) in deficit-reducing measures for the current year — and substantially more as economic conditions warrant in subsequent years. This would restrain domestic demand and release resources that a lower dollar, abetted by easier monetary policy, could channel into external adjustment. Such an approach, pursued consistently year by year, would rely on both income and price adjustments to avoid recession while bringing the current account deficit below $100 billion by 1990.

Conclusions

A root cause of this fall's maelstrom in international bond and stock markets lies in the persistence of major global imbalances. Last February's Louvre accord led the markets to believe the imbalances were on course to correction based on policy fundamentals officially judged broadly consistent with exchange rate stability. That judgment has proven wanting. If current exchange rates hold, the United States will be lucky to maintain decent economic growth and simultaneously narrow its trade deficit more than $25 billion in 1988 from the $175 billion, CIF basis, now in store for 1987. Chronic deficits on this scale — more than 3.5% of GNP — are simply not acceptable. Their inconsistency with fixed exchange rates, given the failure of both surplus countries and the United States to achieve appropriate domestic demand conditions, has contributed mightily to the run-up in interest rates. Altogether, the Louvre accord has become a formula for world recession.

The slowness of trade and current account adjustment should be neither surprise nor mystery. The principal hindrance lies in the fact that the basic demand management policies of the major industrial countries

---

*Higher import prices raise the general U.S. price level, yielding a transitory hump in the rate of inflation — but not a continuing increase if unit costs stay in check. Over the past eighteen months, manufacturing unit labor costs have shown an absolute fall, since labor productivity rose 4.1% annually during the past three years and in the second quarter of 1987 reached 4.9%. If the productivity trend can be maintained or bettered, unit cost inflation need not spiral unless wage growth picks up a real head of steam.

Table 11

G-3 economic adjustment

percent per annum, unless otherwise noted

	1986	*1st half* 1987*	*1987*	*1988*	*Policy objective 1988-1990 avg.***
Domestic demand contribution					
United States	3.9	1.8	2.2	2.1	1.5
Japan	3.8	3.4	4.0	3.9	5.0
Germany	3.6	0.4	2.0	2.4	4.0
Exchange rates (average)					
Yen/$	168	148	144	125	115
DM/$	2.17	1.83	1.83	1.63	1.50
Net foreign contribution					
United States	—0.9	1.3	0.4	0.8	1.0
Japan	—1.3	0.0	—0.8	—0.7	—0.8
Germany	—1.1	—1.2	—0.5	—0.2	—1.0
Real GNP					
United States	2.9	3.1	2.6	2.9	2.5
Japan	2.5	3.4	3.2	3.2	4.2
Germany	2.5	—0.8	1.5	2.2	3.0
*Trade balance, CIF***					
United States	—160	—164	—175	—143	—77
Japan	93	96	96	85	62
Germany	52	61	60	59	30
*Current account balances****					
United States	—141	—156	—167	—152	—97
Japan	86	91	86	79	47
Germany	37	44	40	37	15

*Real GNP data, including components, are percent change from the preceding half year at seasonally adjusted annual rates.

**Trade and current account figures are for 1990, while other data are average for the period.

***$ billions.

have been too slow to shift into a posture supportive of adjustment and still do not measure up to the needed scale of adjustment. Thus, U.S. domestic demand grew 4% in the third quarter of 1987 and net external demand deteriorated. Yet, though U.S. fiscal discipline commands virtually unanimous praise as a principle, sustained follow-through is quite another matter as twilight steals over the incumbent Administration. Elsewhere, the budget stance was supercautious in Japan during 1985-86 and, notwithstanding this year's shift in plans, cannot be rated expansionary for the long haul. Germany's three-stage tax reduction is decidedly gradualist, and its design pays scant heed to external considerations. In addition, some other countries in Europe, heavily reliant on exports, are loath to part with their external surpluses. Thus the surplus countries have done little to boost their spending and the number-one deficit nation has dawdled on spending restraint.

At the same time, the adjustment potential of exchange rate changes has not come through in practice. Economic weakness abroad has limited the ability of U.S. exporters to sustain their foreign-currency selling prices — and thus boost their dollar earnings in line with the dollar's depreciation — and foreign suppliers have gone to extraordinary lengths to hold the line on their U.S. selling prices rather than pass through the dollar's depreciation to U.S. consumers. In short, both expenditure and price factors have tended to cripple adjustment so far, and under current policies are unlikely to yield significant progress in the future.

If policymakers are to reclaim influence over events, the Louvre accord requires a full and urgent rewrite. At United States behest, the G-7 has endorsed a profusion of indicators as bearing on the state of the world economy. These indicators now should be used in support of an explicit goal for correcting the principal global imbalance: specifically, to cut the U.S. trade deficit $100 billion, to the $70-$80 billion range or preferably lower, by 1990.

There are any number of ways by which this goal might be attained, but few that would do so while sustaining world economic growth. If both goals are to be reached, the number-one priority must be to get demand management policies in order. To make room for external improvement, the United States should curb its domestic demand growth to the 1.5%-1.7% range — at least one-half percentage point less than the likely growth this year (see Table 11) — through fiscal restraint that exceeds the modest immediate goal of the Gramm-Rudman-Hollings edict. At the same time, Japan should shoot for domestic demand growth of at least 5% annually and Germany at least 4% — in both cases, growth rates markedly above what present policy intentions suggest; again, fiscal expansion is the preferred instrument.

Once demand policies are put right, it would be foolish to resist a further fall in the dollar as an aid to adjustment. However, it is an illusion to suppose that the U.S. trade deficit can be cured by driving down the dollar while procrastinating on the demand issue. If domestic demand growth is not reined back, currency depreciation in today's full-employment economy would breed little or no trade adjustment but build an inflation problem ultimately soluble only by recession. By contrast, if U.S. domestic demand is held in check, it becomes entirely sensible to let the dollar go lower. In that way, amplified by the increased exchange rate "pass-through" that renewed dollar decline should compel, price incentive would reinforce the income determinant of U.S. trade adjustment. The more that domestic demand paths can be tilted to favor external adjustment, in the surplus countries as importantly as in the United States, the less will adjustment need to rely on dollar depreciation.

In a world of integrated production and markets, the management of global imbalances and economic growth demands an international approach. Policymakers have responded by upgrading the G-7 forum, issuing pronouncements of impressive gravity, and sometimes adjusting policies at the margin, albeit largely as domestic considerations might warrant. But willingness to adjust domestic policies for global ends is rarely in evidence. Nationalism still rules. Its danger now is a rocky descent into protectionism, trade bilateralism (a factor in the otherwise commendable U.S. initiatives vis-à-vis Canada and Mexico), disintegration of global trade and financial markets, and impaired growth and living standards for the free world generally.

The markets have delivered the strongest possible message to the G-7. The Group's efforts at coordination for global growth and adjustment so far have been to little positive effect and lack credibility. For now, musings on gold, commodity prices, or nominal GNP targets are best left to academic research. Nor is pursuit of exchange rate stability for its own sake an appropriate endeavor. The real urgency lies in getting macroeconomic policy fundamentals right.

Statistical appendix

For key to data in tables see April 1987 issue.

Effective exchange rates — industrial countries, 16

Real effective exchange rates — developing countries, 17

International banking market size, 17

International bond issues and bank credits, 18

Eurocurrency deposit rates, 19

International bond yields, 19

Central bank discount rates, 20

Day-to-day money rates, 20

Treasury bill rates, 21

Representative money market rates, 21

Commercial bank deposit rates, 22

Domestic government bond yields, 22

Commercial bank lending rates to prime borrowers, 23

Domestic corporate bond yields, 23

Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates — industrial countries

Index numbers, 1980-82 average=100.

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
Nominal against 15 other industrial-country currencies																
1982	109.8	99.4	98.5	100.0	93.1	102.8	92.7	98.0	101.7	92.2	102.7	94.0	106.3	95.6	101.7	92.7
1983	114.2	100.8	107.7	91.9	87.3	107.5	90.3	91.5	103.6	90.0	105.0	78.4	111.4	96.4	99.4	82.1
1984	122.3	97.3	112.8	94.2	84.4	107.3	86.7	88.0	103.6	88.9	103.9	77.3	110.4	93.9	97.8	84.2
1985	126.9	92.8	115.7	76.3	85.4	107.8	92.1	88.1	104.2	89.5	104.0	75.5	109.5	95.0	95.6	83.8
1986	105.9	87.6	150.0	61.3	87.4	116.1	82.8	80.6	107.8	92.9	110.3	73.4	118.0	99.7	89.2	81.5
1987																
January	98.5	88.1	156.1	57.2	87.4	122.2	84.0	74.8	110.4	95.9	114.9	71.9	121.7	103.9	83.8	79.9
February	96.9	89.7	156.4	57.2	87.9	122.7	83.9	74.8	110.7	96.4	115.0	71.3	121.4	104.6	84.4	80.0
March	96.0	90.5	157.9	58.3	87.3	121.7	83.3	78.1	110.3	95.7	114.1	71.1	121.4	103.7	84.8	80.6
April	94.0	90.2	165.9	59.1	87.2	121.4	82.9	78.8	110.0	95.5	114.1	71.1	123.0	103.2	85.3	80.6
May	93.5	88.4	168.2	58.7	87.1	121.7	82.1	79.8	110.1	95.6	114.3	71.4	123.8	103.6	85.8	80.4
June	94.8	88.8	164.7	59.9	87.1	121.6	81.8	79.1	110.2	95.6	114.3	71.9	122.7	103.4	86.5	80.5
July	96.0	90.0	159.1	60.0	87.2	121.4	81.6	79.2	110.2	95.4	114.2	72.5	122.2	102.4	87.2	80.4
August	95.7	90.0	162.7	59.8	86.8	121.3	81.5	78.9	110.1	95.2	114.1	73.6	122.6	101.3	87.3	80.2
September	93.9	90.3	165.4	60.5	86.9	121.5	81.7	79.6	110.1	95.3	114.1	74.6	122.7	100.6	87.4	79.9
September 4	93.4	90.2	167.3	60.0	86.8	121.7	81.7	79.4	110.1	95.4	114.4	74.4	123.2	101.1	87.3	79.8
11	93.5	89.9	166.4	60.3	86.9	121.8	81.7	79.5	110.2	95.3	114.6	74.5	123.0	100.9	87.3	79.8
18	93.9	90.3	164.8	60.8	87.0	121.5	81.8	79.6	110.0	95.3	114.4	74.5	122.6	101.0	87.3	79.8
25	94.0	90.3	165.0	60.9	87.0	121.4	81.8	79.7	110.0	95.3	114.3	74.6	122.4	101.2	87.5	79.2
October 2	94.7	91.0	163.2	60.1	87.0	121.2	81.7	79.6	109.9	95.2	114.2	74.9	121.9	101.0	87.4	79.9
9	94.3	91.1	163.3	60.2	86.2	121.5	81.3	79.9	110.1	95.3	114.4	75.1	121.9	101.1	87.4	80.0
16	93.3	91.1	165.7	60.0	86.9	121.4	81.8	80.0	110.0	95.0	114.3	75.7	122.6	101.3	87.4	79.8
Real against 15 other industrial-country currencies																
1981	100.8	99.5	104.6	102.6	100.0	96.9	98.9	102.3	99.4	101.4	97.1	99.6	98.7	98.9	101.3	101.8
1982	109.3	100.6	92.3	105.7	97.2	99.9	98.5	98.6	101.2	91.8	100.5	98.9	102.9	97.9	103.2	95.5
1983	112.7	102.6	96.7	101.8	94.7	101.0	101.1	93.0	102.0	88.5	100.7	88.8	105.0	100.4	102.0	90.7
1984	119.5	100.2	97.6	106.4	97.0	98.0	101.8	90.1	103.0	85.8	97.8	91.0	100.0	99.2	100.5	95.9
1985	122.3	96.4	96.5	89.4	100.4	96.7	100.2	92.7	103.3	85.2	96.6	92.5	97.9	101.2	99.4	96.8
1986	101.4	93.4	119.1	78.8	103.8	103.3	102.6	87.2	106.6	84.6	101.4	95.3	105.6	107.5	97.0	95.9
1987																
April	90.5	96.5	126.3	81.3	105.6	105.9	103.6	86.9	108.8	84.6	105.3	95.0	110.2	111.9	99.8	95.5
May	89.9	95.1	127.5	80.8	105.3	106.1	103.4	88.3	108.6	84.2	105.3	95.4	110.7	113.1	100.9	95.0
June	91.2	95.6	124.8	82.7	105.4	105.9	103.1	87.6	110.0	84.3	104.6	95.9	109.3	112.5	101.1	95.5
July	92.6	96.9	120.7	83.8	105.8	105.9	102.6	87.8	111.4	83.4	102.9	97.0	108.7	111.3	102.1	95.6
August	92.2	97.2	123.6	84.4	105.3	105.7	102.7	87.4	109.9	83.2	103.0	98.7	109.2	110.1	103.3	95.7
September	90.0	98.1	125.0	86.4	106.0	105.4	102.8	88.2	110.1	83.1	104.5	100.0	109.4	109.8	104.8	95.4
Real against 18 other industrial-country and 22 LDC currencies																
1981	99.8	99.4	104.6	102.5	99.5	96.1	98.2	101.8	98.9	100.8	96.6	98.8	98.0	98.7	101.2	101.5
1982	109.6	101.7	93.9	105.2	96.9	99.4	98.1	98.4	101.1	91.5	99.5	98.9	102.8	97.7	102.9	95.3
1983	114.9	104.6	100.3	102.0	94.4	100.5	100.8	93.0	102.1	88.1	99.5	89.2	105.1	100.3	101.9	90.9
1984	120.7	102.7	102.3	106.7	96.4	96.8	101.0	89.6	102.6	85.0	95.8	91.2	99.7	99.0	100.5	95.7
1985	123.8	99.2	101.5	90.0	100.0	95.8	99.8	92.2	102.9	84.5	94.8	93.2	97.7	101.2	99.8	96.8
1986	107.0	94.5	123.9	80.7	104.4	104.5	104.0	88.0	107.4	85.1	101.3	97.9	107.4	108.0	97.8	96.7
1987																
April	97.2	96.7	130.5	83.2	106.8	108.2	106.2	88.6	110.3	85.8	106.3	98.6	113.1	112.8	100.8	96.8
May	96.3	95.2	131.5	82.7	106.6	108.5	106.0	90.0	110.2	85.5	106.4	99.0	113.6	114.1	102.1	96.6
June	97.3	95.8	128.8	84.4	106.5	108.2	105.6	89.2	111.5	85.5	105.5	99.4	112.1	113.4	102.1	96.8
July	98.5	97.3	124.7	85.0	106.9	108.0	105.0	89.4	112.9	84.5	103.7	100.5	111.4	112.2	103.1	96.8
August	98.1	97.5	127.8	85.7	106.3	107.7	105.0	88.9	111.3	84.2	103.7	102.2	112.0	111.0	104.3	96.9
September	95.7	98.1	128.5	87.5	107.0	107.5	105.1	89.8	111.5	84.2	105.2	103.5	112.1	110.7	105.7	96.6

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1981	107.1	103.2	108.0	100.6	113.9	103.3	99.7	98.9	99.8	100.3	99.4	101.2	102.0	101.8	99.2	104.5
1982	76.6	112.8	97.0	105.9	82.2	104.5	110.2	101.6	111.7	101.9	105.6	106.7	100.8	96.6	108.6	95.8
1983	71.2	85.9	89.1	104.9	78.5	98.3	117.2	95.7	96.2	97.6	113.9	96.1	101.8	94.6	120.7	93.3
1984	79.8	85.6	89.9	99.6	91.3	105.7	85.9	100.2	95.9	96.5	119.6	107.8	102.4	97.1	119.4	91.0
1985	70.9	84.9	79.4	85.6	90.0	96.3	93.0	104.1	94.7	89.1	116.3	114.5	95.6	94.6	106.5	91.3
1986	60.7	74.3	68.4	67.7	64.7	93.7	85.7	94.9	71.6	75.7	94.5	90.2	80.2	86.7	100.7	71.0
1987																
January	58.2	75.9	65.6	65.5	60.8	107.7	49.9	91.0	56.0	74.1	89.5	87.6	76.4	88.4	94.5	63.7
February	55.5	71.7	66.1	65.7	61.2	110.9	53.5	90.4	56.0	73.7	89.9	84.9	74.7	88.7	93.2	63.3
March	53.3	71.2	66.6	64.9	62.0	112.8	56.9	91.5	55.1	73.7	90.1	84.5	74.2	89.2	94.4	64.1
April	53.1	75.4	65.9	63.9	62.1	115.4	57.6	90.6	53.6	73.5	90.0	83.8	73.1	89.6	94.9	63.4
May	53.1	75.7	66.0	63.2	63.0	118.2	55.9	90.7	53.8	74.1	89.5	84.0	73.3	92.0	94.8	62.9
June	53.6	75.5	65.6	63.1	65.1	121.7	57.9	92.3	54.7	75.4	89.8	86.4	73.8	94.8	96.7	63.0
July	53.5	73.1	65.8	63.6	68.4	131.5	58.6	91.5	56.1	76.6	91.0	88.8	74.5	95.9	97.4	62.8
August	54.7	71.4	67.3	63.6	67.7	140.8	58.7	91.5	55.9	76.4	90.9	86.5	74.4	98.0	98.3	62.4
September	53.3	80.1	65.8	63.3	68.3	146.9	58.6	92.5	57.4	76.0	89.9	86.9	73.4	96.4	98.2	60.0

International banking market size

at end of period, billions of dollars

	1982	*1983*	*1984*	*1985*	*1986*				*1987*
					Mar	*Jun*	*Sep*	*Dec*	*Mar*
Gross claims									
Eurocurrencies, on residents and nonresidents	**2 146**	**2 253**	**2 359**	**2 833**	**2 947**	**3 040**	**3 347**	**3 560**	**3 811**
On nonbanks	634	665	694	822	854	875	914	938	995
On banks	1 512	1 588	1 665	2 011	2 093	2 165	2 433	2 622	2 817
In dollars	1 694	1 797	1 894	2 101	2 138	2 166	2 381	2 534	2 602
In other currencies	452	456	465	732	809	874	966	1 025	1 209
Domestic currencies, on nonresidents	**398**	**402**	**402**	**506**	**535**	**578**	**633**	**672**	**721**
On nonbanks	132	140	142	187	186	201	211	209	229
On banks	266	262	260	319	349	377	422	463	492
In dollars	211	221	215	215	203	210	219	227	206
In other currencies	187	181	187	291	332	368	414	445	515
Total	**2 544**	**2 655**	**2 761**	**3 339**	**3 482**	**3 618**	**3 980**	**4 232**	**4 532**
On nonbanks	766	805	836	1 009	1 040	1 076	1 125	1 147	1 224
On banks	1 778	1 850	1 925	2 330	2 442	2 542	2 855	3 085	3 309
In dollars	1 905	2 018	2 109	2 316	2 341	2 376	2 600	2 761	2 808
In other currencies	639	637	652	1 023	1 141	1 242	1 380	1 470	1 724
Gross liabilities									
Eurocurrencies, to residents and nonresidents	**2 168**	**2 278**	**2 386**	**2 846**	**2 964**	**3 059**	**3 384**	**3 579**	**3 851**
To nonbanks	432	479	497	585	610	632	660	685	740
To official monetary institutions	91	88	96	112	106	109	110	109	125
To other banks	1 645	1 711	1 793	2 149	2 248	2 318	2 614	2 786	2 986
In dollars	1 741	1 846	1 950	2 147	2 166	2 204	2 425	2 553	2 648
In other currencies	427	432	436	699	798	855	959	1 026	1 203
Domestic currencies, to nonresidents	**250**	**260**	**280**	**377**	**394**	**418**	**464**	**494**	**556**
To nonbanks	70	73	80	114	121	121	121	116	134
To banks	180	187	200	263	273	297	343	377	422
In dollars	116	135	146	169	166	171	191	192	192
In other currencies	134	125	134	208	228	247	273	302	364
Total	**2 418**	**2 538**	**2 666**	**3 223**	**3 358**	**3 477**	**3 848**	**4 073**	**4 407**
To nonbanks	502	552	577	699	731	753	781	801	874
To banks and official institutions	1 916	1 986	2 089	2 524	2 627	2 724	3 067	3 272	3 533
In dollars	1 857	1 981	2 096	2 316	2 332	2 375	2 616	2 745	2 840
In other currencies	561	557	570	907	1 026	1 102	1 232	1 328	1 567
Net market size	**1 285**	**1 382**	**1 430**	**1 676**	**1 735**	**1 800**	**1 912**	**1 979**	**2 023**

International bond issues and bank credits

millions of dollars

	1984	1985	1986	1987			Jan-Aug	
				Jun	Jul	Aug	1987	1986
By country of borrower								
Industrial countries	**177 077**	**226 711**	**270 231**	**17 825**	**23 225**	**15 277**	**159 701**	**174 119**
Australia	5 816	14 407	20 106	1 157	2 150	305	8 491	10 609
Austria	2 254	2 435	3 581	305	212	418	2 909	2 499
Belgium	1 847	3 269	4 952	430	395	601	3 480	3 585
Canada	13 124	17 184	21 633	1 386	806	206	6 772	12 770
Denmark	4 825	3 589	9 633	246	142	78	3 969	4 603
Finland	1 713	1 846	3 445	151	110	244	2 472	2 024
France	11 298	18 773	19 701	604	784	438	9 069	12 394
Germany	2 165	3 452	11 927	737	1 213	1 183	9 050	7 958
Greece	1 551	1 587	1 317	166	—	158	834	902
Ireland	1 377	1 881	4 179	130	85	80	1 233	3 208
Italy	6 933	11 033	12 962	810	1 192	200	5 476	9 486
Japan	17 526	21 269	35 508	4 125	6 592	5 262	33 685	22 011
Netherlands	1 973	2 299	3 579	789	896	—	3 843	2 288
New Zealand	3 208	2 707	8 078	275	228	308	3 379	4 683
Norway	1 324	3 905	6 644	292	205	429	4 281	4 274
Portugal	1 796	2 382	2 433	336	589	—	1 891	2 130
South Africa	1 422	825	—	—	—	—	—	—
Spain	4 931	3 913	7 015	139	98	—	994	4 205
Sweden	11 256	9 890	8 020	765	405	137	4 196	6 248
United Kingdom	8 899	25 424	24 295	1 136	1 492	959	19 205	14 914
United States	65 054	69 193	56 774	3 287	4 432	3 087	29 275	40 385
*Other**	6 785	5 447	4 448	555	1 200	1 182	5 195	2 942
Developing countries	**39 725**	**32 139**	**24 317**	**1 549**	**2 445**	**2 598**	**21 810**	**16 336**
Latin American countries	**17 464**	**8 115**	**3 192**	**66**	**191**	**1 950**	**10 732**	**1 795**
Argentina	4 212	3 700	17	—	—	1 950	1 950	17
Brazil	6 649	—	219	—	—	—	—	—
Chile	784	1 085	—	—	—	—	—	—
Colombia	589	1 052	89	—	—	—	50	89
Mexico	3 918	109	313	—	—	—	7 700	50
Venezuela	—	48	—	—	30	—	30	—
*Other***	1 312	2 121	2 554	66	161	—	1 002	1 639
Asian countries	**15 893**	**18 410**	**15 291**	**1 000**	**2 054**	**648**	**8 968**	**10 460**
India	945	818	1 721	55	628	25	1 458	844
Indonesia	1 924	451	1 358	215	25	35	895	1 008
Korea	6 201	5 898	3 134	174	375	242	2 113	2 606
Malaysia	2 605	2 219	1 328	83	113	—	363	762
Philippines	925	925	—	—	—	—	—	—
Thailand	1 221	1 497	1 401	—	66	38	273	1 044
Other	2 072	6 602	6 350	473	847	308	3 866	4 196
Middle Eastern and African countries	**6 368**	**5 613**	**5 834**	**483**	**200**	—	**2 110**	**4 081**
Algeria	821	1 450	1 344	87	—	—	241	996
Nigeria	985	—	—	—	—	—	—	—
Turkey	741	1 203	2 637	370	200	—	1 423	1 522
Other	3 821	2 960	1 853	26	—	—	446	1 563
Eastern European countries	**3 244**	**5 236**	**4 091**	**100**	**652**	—	**2 409**	**3 308**
Hungary	1 386	1 577	1 315	—	400	—	1 114	1 149
Soviet Union	1 051	1 489	1 821	—	32	—	694	1 298
*Other****	807	2 169	955	100	220	—	600	860
International organizations****	**13 287**	**20 635**	**18 916**	**1 372**	**2 770**	**1 026**	**13 163**	**12 041**
By type of instrument and currency								
International bond issues	**107 411**	**167 756**	**226 393**	**14 137**	**20 260**	**14 376**	**136 208**	**148 732**
Eurobonds	79 458	136 731	187 952	12 176	16 449	10 925	113 649	125 370
U.S. dollar	63 593	97 782	118 220	5 104	9 303	7 387	48 995	77 449
German mark	4 604	9 491	16 870	834	1 214	520	11 378	12 650
British pound	3 997	5 766	10 510	1 272	1 236	648	11 314	8 462
Japanese yen	1 212	6 539	18 673	2 583	444	185	17 774	10 889
European composite units	3 032	7 038	6 965	693	335	389	5 985	5 074
Other	3 020	10 114	16 713	1 689	3 916	1 296	18 203	10 846
Foreign bonds	27 953	31 025	38 441	1 962	3 811	3 451	22 559	23 362
U.S. dollar	5 487	4 655	6 064	—	300	50	2 100	2 814
German mark	2 243	1 741	—	—	—	—	—	—
British pound	1 292	958	322	—	—	—	—	321
Swiss franc	12 626	14 954	23 401	1 512	3 157	2 707	16 166	14 636
Japanese yen	4 628	6 379	4 756	209	66	297	2 089	3 362
Other	1 677	2 339	3 898	241	288	397	2 204	2 227
International bank credits	**125 922**	**116 964**	**91 164**	**6 709**	**8 833**	**4 525**	**60 874**	**57 072**
Eurocurrency credits	112 605	110 317	82 755	5 830	7 078	3 608	54 161	51 909
Foreign credits	13 317	6 647	8 409	879	1 755	917	6 713	5 163
Total	**233 333**	**284 720**	**317 556**	**20 846**	**29 093**	**18 901**	**197 082**	**205 804**

*Includes multinational organizations. **Includes unallocated. ***Includes COMECON institutions. ****Includes regional development organizations.

Eurocurrency deposit rates

prime banks' bid rates, at or near end of month

	1984	1985	1986	1987						
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep
Eurodollar										
overnight	8.63	12.25	22.00	6.25	6.50	6.69	6.44	6.62	6.81	8.25
one month	8.38	8.00	6.50	6.44	6.69	7.12	6.94	6.75	7.12	7.75
three months	8.63	7.88	6.25	6.50	7.00	7.25	7.06	7.00	7.19	8.37
six months	9.13	7.88	6.12	6.56	7.25	7.44	7.25	7.25	7.44	8.50
twelve months	9.81	7.94	6.12	6.69	7.62	7.94	7.62	7.69	7.94	9.00
Euro-Canadian dollar										
one month	9.88	9.00	8.00	6.87	7.37	7.87	8.06	8.94	9.12	9.19
three months	10.81	9.00	8.12	6.87	8.25	8.12	8.19	9.12	9.25	9.69
six months	10.06	9.00	8.19	6.94	8.62	8.44	8.37	9.56	9.62	10.19
twelve months	10.44	9.00	8.31	7.06	8.87	8.87	8.69	9.87	10.00	10.69
Euro-French franc										
one month	10.69	12.50	10.12	8.19	8.12	8.00	8.06	7.81	7.81	7.81
three months	10.69	13.00	10.37	8.25	8.25	8.19	8.37	8.12	8.19	8.31
six months	11.00	13.13	9.75	8.31	8.31	8.37	8.56	8.56	8.81	8.69
twelve months	11.38	12.25	8.75	8.31	8.50	8.62	9.00	9.12	9.31	9.19
Euromark										
one month	5.50	4.75	5.12	3.87	3.81	3.75	3.62	3.87	4.00	4.12
three months	5.50	4.75	4.87	3.87	3.81	3.75	3.81	3.94	4.06	4.56
six months	5.56	4.75	4.81	3.87	3.87	3.75	3.81	4.12	4.31	4.75
twelve months	5.56	4.81	4.81	4.00	4.00	3.87	3.87	4.00	4.44	4.81
Euro-Dutch guilder										
one month	5.69	5.75	6.31	5.31	5.19	5.06	5.19	5.25	5.19	5.25
three months	5.75	5.75	6.00	5.31	5.19	5.06	5.19	5.31	5.31	5.56
six months	5.81	5.81	5.87	5.31	5.19	5.12	5.19	5.37	5.37	5.62
twelve months	5.94	5.88	5.81	5.31	5.19	5.12	5.19	5.44	5.50	5.75
Euro-Swiss franc										
one month	4.44	3.88	3.94	3.25	3.25	4.25	3.69	3.62	3.94	3.69
three months	4.56	4.00	3.94	3.69	3.69	3.87	3.81	3.81	3.75	4.37
six months	4.63	4.00	3.87	3.69	3.69	3.87	3.81	3.94	4.00	4.37
twelve months	4.69	4.06	3.87	3.75	3.81	3.87	3.87	4.00	4.06	4.37
Eurosterling										
one month	9.50	11.69	11.12	10.00	9.44	8.87	9.12	9.00	10.00	10.19
three months	9.88	11.81	11.12	9.81	9.25	8.81	9.19	9.44	10.50	10.37
six months	10.00	11.81	11.06	9.69	9.12	8.81	9.19	9.69	10.75	10.50
twelve months	10.19	11.69	11.06	9.62	9.12	9.06	9.31	10.06	11.00	10.69
Euroyen										
one month	6.19	7.13	4.56	3.94	3.94	4.00	3.81	3.62	4.00	4.37
three months	6.19	6.56	4.50	4.00	3.94	3.87	4.00	4.06	4.06	5.00
six months	6.13	6.50	4.37	4.00	3.87	3.87	4.00	4.12	4.19	5.19
twelve months	6.13	6.38	4.31	4.00	3.94	3.94	4.06	4.25	4.31	5.25
European currency unit										
one month	9.25	9.63	8.56	7.16	6.94	6.69	6.56	6.62	6.75	6.87
three months	9.38	9.63	8.44	7.16	6.94	6.87	6.75	6.19	7.00	7.37
six months	9.50	9.63	8.06	7.16	7.00	7.00	6.94	6.94	7.25	7.56
twelve months	9.63	9.63	7.31	7.19	7.19	7.12	7.12	7.12	7.37	7.68

International bond yields

average yield of several actively traded, high quality issues with a maturity of 7 to 12 years at or near end of month

	1985	1986	1987							
	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States companies										
Eurodollar	9.68	8.67	8.71	8.78	9.53	9.78	10.11	9.82	9.99	10.95
Euromark	6.73	6.62	6.60	6.56	6.59	6.57	6.65	7.04	6.82	6.87
Swiss franc	5.49	5.70	5.64	5.68	5.55	5.52	5.50	5.57	5.43	5.50
European governments										
Eurodollar	10.52	9.91	10.03	10.08	11.00	11.24	11.14	11.22	11.41	11.81
Euromark	7.03	6.77	6.70	6.50	6.33	6.35	6.36	6.55	6.65	6.76
Swiss franc	4.91	4.51	4.35	4.37	4.27	4.34	4.33	4.33	4.38	4.39
European currency unit	10.23	10.20	10.37	10.26	13.07	10.32	10.51	10.40	10.43	10.46

Central bank discount rates

at or near end of month

	1984	*1985*	*1986*	*1987*					*Current*	
	Dec	*Dec*	*Dec*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct 21 1987*	*effective since*
United States	8.00	7.50	5.50	5.50	5.50	5.50	5.50	6.00	6.00	Aug 24, 87
Canada	10.09	9.49	8.47	8.44	8.54	9.22	9.24	9.57	9.83	Oct 15, 87
Austria	4.50	4.00	4.00	3.50	3.50	3.50	3.50	3.50	3.50	Jan 23, 87
Belgium	11.00	9.75	8.00	7.75	7.50	7.25	7.25	7.25	7.25	Jul 23, 87
Denmark	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Oct 27, 83
Finland	9.50	9.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	May 19, 86
France	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	4.50	4.00	3.50	3.00	3.00	3.00	3.00	3.00	3.00	Jan 23, 87
Ireland	14.00	10.25	13.25	11.75	11.25	10.25	10.25	9.75	9.75	Sep, 87
Italy	16.50	15.00	12.00	11.50	11.50	11.50	12.00	12.00	12.00	Aug 28, 87
Netherlands	5.00	5.00	4.50	4.50	4.50	4.50	4.50	4.50	4.50	Mar 7, 86
Portugal	25.00	19.00	16.00	15.00	15.00	15.00	15.00	15.00	15.00	Mar 23, 87
Spain	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	9.50	10.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	Sep 19, 86
Switzerland	4.00	4.00	4.00	3.50	3.50	3.50	3.50	3.50	3.50	Jan 22, 87
United Kingdom	9.38	11.31	10.81	8.87	8.87	8.87	9.87	9.87	9.87	Aug 7, 87
Japan	5.00	5.00	3.00	2.50	2.50	2.50	2.50	2.50	2.50	Feb 23, 87
New Zealand	13.50	19.80	24.60	21.35	20.00	19.20	18.55	n.a.	n.a.	Aug, 87
South Africa	21.75	13.50	10.00	10.00	10.00	10.00	10.00	10.00	10.00	Dec 10, 86
*Argentina**	18.19	5.00	11.19	9.00	10.50	12.80	15.20	15.70	n.a.	Sep, 87
Korea	5.00	5.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	Jul 10, 86
Philippines	12.11	11.50	9.64	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Feb, 87
Singapore	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Jul, 85
Thailand	12.00	11.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Sep 1, 86
Venezuela	11.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	Mar, 85

*Percent per month.

Day-to-day money rates

monthly averages

	1984	*1985*	*1986*	*1987*							
	Dec	*Dec*	*Dec*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*
United States	8.38	8.27	6.71	6.10	6.13	6.35	6.85	6.72	6.58	6.82	7.21
Canada	10.50	9.23	8.28	7.22	7.16	7.10	7.41	8.35	8.53	8.72	8.80
Austria	7.63	7.25	7.62	4.25	4.12	4.25	3.80	3.95	4.10	4.10	4.12
Belgium	9.12	6.60	5.09	6.90	5.83	5.65	5.41	5.42	5.62	4.82	5.24
Finland	15.07	11.96	11.97	11.76	11.44	11.14	11.00	11.00	11.00	11.00	11.00
France	10.95	9.02	7.80	8.36	7.89	7.91	8.02	8.01	7.46	7.41	7.19
Germany	5.62	4.64	5.00	3.83	3.84	3.75	3.69	3.61	3.73	3.78	3.71
Ireland	14.50	9.62	13.00	13.94	13.75	13.25	12.00	11.00	9.00	8.25	8.75
Italy	17.25	14.75	11.42	11.81	11.22	10.56	10.25	10.76	10.95	11.09	11.70
Netherlands	5.60	5.75	6.19	5.31	5.56	5.19	5.20	5.19	5.19	4.84	4.75
Norway	12.50	12.50	14.00	14.00	14.00	14.00	14.00	14.00	n.a.	n.a.	n.a.
Spain	12.18	9.92	11.76	12.47	14.43	17.32	20.18	18.12	18.09	17.68	17.45
Sweden	11.88	11.83	8.89	11.73	12.02	8.70	8.71	8.22	8.61	8.50	n.a.
Switzerland	1.50	2.00	1.12	1.00	1.00	1.75	1.37	2.25	2.00	1.50	1.37
United Kingdom	6.31	9.72	9.19	10.88	10.30	9.61	8.78	9.16	8.78	9.12	9.72
Australia	10.98	18.37	15.40	16.22	16.14	14.71	13.45	12.79	12.08	11.90	11.58
Japan	6.41	8.02	4.18	4.05	3.85	3.52	3.16	3.16	3.17	3.20	3.25
South Africa	21.13	12.50	8.50	8.50	8.37	8.31	8.37	8.00	8.56	n.a.	8.45
*Argentina**	17.75	4.50	7.00	4.00	5.32	5.50	6.00	8.00	9.00	11.17	12.50
Brazil	272.02	352.23	83.05	412.00	408.00	853.00	n.a.	n.a.	n.a.	n.a.	n.a.
Hong Kong	6.80	6.10	3.90	1.97	3.76	4.11	4.20	6.45	5.33	5.54	3.67
Korea	10.00	8.80	9.00	8.60	8.80	8.40	8.50	8.90	8.90	n.a.	n.a.
Philippines	15.22	15.03	n.a.	6.44	13.79	13.29	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	6.01	4.53	3.51	3.22	2.24	3.31	4.39	2.57	3.33	2.91	2.52
Taiwan	8.07	4.50	3.00	3.25	3.10	3.50	3.50	3.50	5.50	n.a.	n.a.

*Percent per month.

Treasury bill rates

bond equivalent yields, at or near end of month

	1984	1985	1986	1987							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	7.99	7.25	5.73	5.48	5.76	5.61	5.82	5.90	6.11	6.41	6.82
Canada	9.84	9.24	8.22	7.28	6.80	8.08	8.19	8.29	8.97	8.99	9.32
Belgium	10.90	9.89	7.50	7.86	7.50	7.35	7.15	6.84	6.74	6.74	6.74
Ireland	15.10	11.15	13.60	13.67	13.51	11.29	10.86	10.46	9.56	9.93	8.93
Italy	14.69	13.10	10.00	9.74	9.66	9.60	9.60	9.60	10.53	10.92	n.a.
Netherlands	5.39	5.69	6.37	5.87	5.44	5.31	5.31	4.75	5.25	5.62	n.a.
Spain	12.27	9.52	8.37	7.67	n.t.	9.61	10.40	9.59	8.61	7.10	6.73
Sweden	11.83	12.49	9.20	10.80	10.31	9.25	9.16	8.60	9.11	9.25	n.a.
United Kingdom	9.33	11.49	10.79	10.46	9.54	9.39	8.68	8.96	9.14	10.12	10.02
Australia	12.27	19.40	14.91	16.32	15.47	14.00	13.01	12.23	12.04	11.91	11.09
Japan	4.91	4.91	2.89	2.89	2.38	2.38	2.38	2.38	2.38	2.38	2.38
New Zealand	13.50	17.62	19.69	25.38	24.70	25.29	19.48	18.40	n.t.	19.38	n.t.
South Africa	21.94	12.99	8.84	8.78	8.26	8.60	8.96	8.64	8.74	8.70	8.72
Brazil	273.03	379.77	149.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mexico	48.67	72.98	104.03	104.83	100.66	99.01	98.60	98.40	96.86	n.a.	n.a.
Philippines	47.14	16.45	n.a.	7.71	11.76	11.80	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	2.91	2.94	2.10	1.67	1.93	2.12	2.61	2.63	2.97	3.01	3.26

Representative money market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments other than Treasury bills, at or near end of month

	1984	1985	1986	1987							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	8.34	8.01	8.04	6.24	6.70	6.98	7.12	7.10	6.98	7.10	7.94
Canada	10.00	9.40	8.35	7.40	6.90	8.15	8.30	8.45	9.20	9.15	9.25
Belgium	10.85	9.89	7.60	7.81	7.50	7.40	7.30	7.00	6.84	6.79	6.79
France	10.69	9.12	8.37	8.25	7.87	8.00	8.12	8.25	7.87	7.81	7.87
Germany	5.75	4.80	4.85	3.85	3.85	3.80	3.65	3.65	3.85	3.85	4.55
Ireland	15.13	12.00	14.06	14.25	13.37	10.87	11.19	10.50	9.87	9.94	9.94
Italy	16.88	15.13	11.37	11.12	10.12	10.00	10.50	11.00	11.12	12.37	12.37
Netherlands	5.75	5.75	6.19	5.50	5.55	5.31	5.25	5.25	5.37	5.25	5.38
Portugal	24.57	20.71	16.07	14.94	14.95	14.96	14.90	15.05	15.07	15.09	n.a.
Spain	12.21	10.51	11.79	12.60	14.60	17.09	19.80	18.29	17.56	16.83	16.86
Switzerland	5.00	4.75	4.50	4.00	3.87	3.75	3.87	3.81	3.94	3.75	4.25
United Kingdom	9.88	12.75	11.25	10.19	10.06	9.25	9.00	9.25	9.44	10.31	10.19
Australia	12.90	19.75	15.10	16.60	16.25	14.50	13.80	13.35	12.40	12.50	11.25
Japan	6.33	7.03	4.34	3.96	3.98	3.89	3.70	3.73	3.74	3.71	3.84
New Zealand	15.00	20.00	24.25	25.15	25.60	25.70	20.35	18.75	18.70	18.30	18.90
South Africa	22.78	13.35	8.55	9.05	8.40	9.10	9.00	8.60	8.80	8.85	8.90
Chile	20.68	22.42	19.56	25.34	23.87	22.42	28.32	14.03	18.16	25.34	26.82
Hong Kong	8.25	6.50	4.62	4.37	4.87	5.50	6.25	6.87	6.19	6.56	6.37
Indonesia	19.00	15.00	19.50	16.00	17.00	16.50	18.00	27.00	n.a.	20.50	18.75
Korea	8.00	8.00	8.00	8.00	8.00	8.00	7.50	7.50	7.50	7.50	n.a.
Malaysia	10.30	8.20	6.00	3.30	2.60	2.70	2.80	2.75	n.a.	n.a.	n.a.
Philippines	33.21	14.61	8.31	7.05	8.72	10.05	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	7.00	5.88	3.94	3.31	3.26	3.73	4.44	4.31	4.13	n.a.	n.a.
Taiwan	7.85	4.10	3.87	3.67	3.56	3.57	3.48	4.36	4.72	n.a.	n.a.
Thailand	12.00	15.50	7.75	7.75	7.75	7.75	7.75	7.75	n.a.	n.a.	n.a.

Commercial bank deposit rates

at or near end of month

	1984	1985	1986	1987							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	8.35	7.75	6.30	6.13	6.30	6.80	7.05	6.90	6.77	6.95	8.05
Canada	10.05	9.40	8.15	7.40	7.00	8.25	8.45	8.50	9.25	9.20	9.60
Austria	7.50	6.50	5.50	4.75	4.50	4.37	4.15	4.15	4.25	4.30	4.60
Belgium	10.63	9.63	7.44	7.69	7.37	7.19	7.00	6.56	6.19	6.52	6.56
Denmark	6.00	7.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Finland	5.25	4.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
France	7.04	6.12	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	n.a.
Germany	5.25	4.40	4.80	3.90	3.95	3.95	3.85	3.75	3.75	3.75	3.90
Ireland	14.63	11.87	13.75	14.00	13.25	10.75	11.00	10.25	9.62	9.87	9.00
Italy	11.64	13.21	10.69	10.08	9.88	9.75	10.53	n.a.	n.a.	n.a.	n.a.
Netherlands	5.69	5.81	6.06	5.37	5.37	5.25	5.12	5.12	5.25	5.25	5.50
Norway	12.75	12.00	15.00	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	28.00	20.00	n.a.	15.00	14.50	14.50	14.50	14.50	14.50	14.50	14.50
Spain	11.64	9.64	8.67	8.57	8.58	8.60	8.77	8.98	9.04	9.21	9.22
Sweden	11.45	12.18	9.93	11.00	10.75	9.75	10.00	9.00	9.25	9.70	n.a.
Switzerland	4.50	4.50	4.25	3.75	3.62	3.50	3.62	3.56	3.69	3.50	4.00
United Kingdom	9.88	11.75	11.19	10.59	9.84	9.25	8.81	9.25	9.31	10.12	10.00
Australia	12.75	18.80	15.56	16.62	16.13	15.21	14.42	13.85	13.41	12.67	12.14
Japan	6.38	7.04	4.55	4.17	4.20	4.11	3.88	3.99	4.09	4.10	4.45
New Zealand	15.25	19.98	23.50	23.70	23.30	23.85	20.00	18.40	18.35	18.40	18.75
South Africa	22.88	13.20	8.65	9.25	8.75	9.15	9.25	9.00	9.00	9.00	9.35
Argentina*	31.23	5.40	8.41	4.43	4.86	7.17	7.81	7.96	10.24	12.20	18.20
Brazil**	27.00	18.00	220.00	32.00	30.00	24.00	n.a.	n.a.	n.a.	n.a.	n.a.
Chile	20.68	23.60	20.98	27.42	24.31	25.93	18.00	17.00	17.74	25.05	26.83
Hong Kong	8.25	6.50	4.62	4.37	4.87	5.50	6.25	6.87	6.19	6.56	6.37
Korea	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Malaysia	9.58	7.00	6.33	4.66	2.33	2.43	2.35	2.42	n.a.	n.a.	n.a.
Mexico	47.45	72.90	94.30	94.30	94.30	94.30	94.30	94.30	94.30	n.a.	n.a.
Philippines	31.01	12.34	n.a.	6.68	6.13	7.96	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	6.13	5.26	3.63	3.32	3.32	3.63	4.88	4.38	4.25	n.a.	n.a.
Taiwan	6.50	5.25	4.00	4.00	4.00	4.00	4.00	4.00	4.00	n.a.	n.a.
Thailand	13.00	10.50	6.75	6.75	6.75	6.75	n.a.	n.a.	n.a.	n.a.	n.a.
Venezuela	12.50	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	n.a.

*Percent per month.

Domestic government bond yields

long-term issues, at or near end of month

	1984	1985	1986	1987							
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	11.61	9.49	7.79	7.48	7.81	8.45	8.65	8.50	8.88	9.18	9.80
Canada	11.66	10.04	9.23	9.10	8.98	9.82	9.92	9.78	10.23	10.44	11.16
Austria	8.03	7.61	7.33	7.05	6.93	6.86	6.74	6.61	6.68	6.83	7.00
Belgium	11.56	9.60	7.70	7.57	7.64	7.66	7.76	7.82	7.64	7.93	8.25
Denmark	14.60	9.67	11.04	11.48	10.56	13.09	13.03	10.09	11.57	13.02	12.33
Finland	10.73	10.58	7.80	7.82	7.89	7.77	7.88	7.85	7.86	7.87	7.83
France	12.70	11.33	9.89	9.84	9.42	9.51	9.86	10.40	10.39	10.60	n.a.
Germany	7.17	6.57	6.25	6.26	6.12	5.98	5.99	6.31	6.39	6.59	6.86
Ireland	14.90	11.84	12.97	12.41	11.16	10.47	10.92	10.93	11.81	11.92	11.30
Italy	14.52	13.66	10.05	9.84	10.03	10.08	10.20	10.41	10.90	11.30	n.a.
Netherlands	7.72	6.96	6.40	6.15	6.22	6.12	6.07	6.26	6.43	6.66	6.81
Norway	12.00	13.00	13.24	13.03	13.20	12.96	13.08	13.11	13.00	13.00	n.a.
Portugal	22.23	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	13.93	12.52	10.36	10.59	10.95	12.04	13.43	13.29	13.56	13.75	14.26
Sweden	12.04	12.11	10.66	11.23	10.70	11.07	11.77	11.37	11.79	11.92	n.a.
Switzerland	4.60	4.42	4.05	4.01	4.04	4.03	4.07	4.02	3.98	4.06	4.32
United Kingdom	10.25	10.35	10.17	9.51	9.15	8.87	8.79	9.15	9.69	9.93	9.85
Australia	13.50	14.85	13.40	14.00	13.45	13.05	13.00	12.80	12.95	12.95	12.50
Japan	6.47	5.92	4.61	3.96	3.72	3.42	3.38	3.91	4.44	4.43	5.72
New Zealand	16.90	17.00	16.00	16.80	16.30	15.95	15.65	15.45	15.80	15.65	15.45
South Africa	16.55	18.09	15.06	15.30	14.66	15.30	15.70	15.60	15.18	14.98	15.12
Philippines	18.54	n.t.	n.t.	n.t.	n.t.	n.t.	n.a.	n.a.	n.a.	n.a.	n.a.
Venezuela	14.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	n.a.

Commercial bank lending rates to prime borrowers

at or near end of month

	1984	1985	1986	1987						
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	10.75	9.50	7.50	7.50	7.50	7.75	8.25	8.25	8.25	8.25	8.75
Canada	11.25	10.00	9.75	9.25	8.75	9.25	9.50	9.50	9.50	10.00	10.00
Austria	9.25	9.00	9.00	8.75	8.75	8.75	8.75	8.50	8.50	8.50	8.50
Belgium	14.00	11.50	9.75	10.25	9.75	9.75	9.25	9.25	8.75	8.75	8.75
Denmark	10.50	8.50	8.00	10.00	10.00	10.00	10.00	9.50	9.50	9.50	9.50
Finland	10.68	10.37	8.81	8.80	8.84	8.86	8.89	8.91	8.93	8.94	n.a.
France	12.00	10.60	9.45	9.45	9.45	9.45	9.45	9.45	9.45	9.45	9.45
Germany	7.75	7.25	6.75	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25
Ireland	15.75	12.50	15.75	15.75	15.75	15.25	14.25	13.75	12.75	12.75	12.00
Italy	18.00	15.88	13.00	13.00	12.50	12.50	12.50	12.50	12.50	13.00	13.00
Netherlands	6.25	6.25	7.12	5.75	5.87	5.75	5.62	5.62	5.62	5.62	5.62
Norway	13.00	12.40	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Portugal	29.00	22.50	17.50	17.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50
Spain	15.84	14.75	14.22	14.24	14.57	15.23	16.21	16.51	16.62	16.61	16.69
Sweden	14.50	15.05	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	n.a.
Switzerland	6.00	6.00	5.75	5.25	5.25	5.00	5.00	5.00	5.00	5.00	5.00
United Kingdom	9.50	11.50	11.00	11.00	10.00	9.50	9.00	9.00	9.00	10.00	10.00
Australia	14.00	21.00	18.50	18.50	18.50	17.50	16.75	16.25	15.75	15.25	14.45
Japan	5.50	5.50	3.75	3.75	3.37	3.37	3.37	3.37	3.37	3.37	3.37
New Zealand	14.00	21.00	18.50	25.00	27.00	29.00	22.50	22.00	21.00	19.00	20.00
South Africa	24.00	16.50	12.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50
Argentina*	32.05	7.30	11.30	5.45	5.71	9.20	8.50	9.65	13.20	15.90	20.00
Brazil**	31.00	19.00	250.00	45.00	40.00	37.00	n.a.	n.a.	n.a.	n.a.	n.a.
Chile	60.82	33.34	29.13	36.07	34.48	36.07	40.27	30.91	27.11	31.66	33.12
Hong Kong	11.00	7.00	6.50	5.00	6.00	6.50	6.50	7.50	7.50	7.50	7.50
Indonesia	23.50	18.75	19.75	19.50	19.50	19.25	19.75	26.00	26.00	23.00	22.00
Korea	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Malaysia	12.00	10.50	10.00	9.00	9.00	8.50	8.50	7.75	7.25	n.a.	n.a.
Mexico	47.54	65.66	95.33	96.20	96.25	95.79	94.79	93.76	92.91	n.a.	n.a.
Philippines	44.00	15.00	10.50	8.75	8.53	8.55	9.31	9.50	n.a.	n.a.	n.a.
Singapore	9.40	7.20	6.10	6.10	6.10	6.10	6.10	6.10	6.10	6.10	6.10
Taiwan	10.00	9.50	9.00	9.00	9.00	9.00	9.00	9.00	9.00	n.a.	n.a.
Thailand	16.50	15.50	12.00	12.00	12.00	12.00	n.a.	n.a.	n.a.	n.a.	n.a.
Venezuela	16.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	n.a.

*Percent per month.

**Spread above monetary correction until Feb 86; nominal rate of interest until Jan 87; spread above LBC rate thereafter.

Domestic corporate bond yields

long-term issues, at or near end of month

	1984	1985	1986	1987						
	Dec	Dec	Dec	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
United States	12.25	10.15	8.88	8.55	8.65	9.60	9.55	9.55	9.90	10.15	10.75
Canada	12.42	10.74	10.18	9.90	9.79	10.44	10.44	10.46	11.05	11.74	11.74
France	12.94	11.76	10.18	10.06	9.79	9.82	10.05	10.38	10.37	10.77	n.a.
Germany	7.20	6.90	6.50	6.40	6.60	6.50	6.40	6.50	6.60	6.70	n.a.
Netherlands	7.51	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.
Norway	12.75	14.00	14.94	n.a.	16.37	15.47	14.22	16.21	n.a.	n.a.	n.a.
Spain	18.32	14.92	13.40	14.13	14.82	15.52	15.76	16.39	16.94	17.52	17.39
Sweden	12.33	13.25	11.99	12.63	12.15	12.15	12.89	12.47	12.68	12.89	n.a.
Switzerland	5.09	4.93	4.72	4.56	4.58	4.57	4.56	4.56	4.53	4.55	4.72
United Kingdom	11.64	11.47	11.71	10.58	10.21	10.09	10.19	10.15	10.55	11.41	11.43
Japan	7.10	6.79	5.93	5.35	5.20	4.99	4.71	5.20	n.a.	6.00	n.a.
Korea	15.00	13.60	12.80	12.70	13.00	13.00	12.80	12.70	12.70	n.a.	n.a.
Venezuela	18.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	n.a.	n.a.

World Financial Markets

Published by
Morgan Guaranty Trust Company of New York
International Economics Department
23 Wall Street, New York, NY 10015

Member, Federal Deposit Insurance Corporation Printed in U.S.A.